MENTORING DOCTORAL STUDENTS IN NURSING EDUCATION: PROCESSES, PERCEPTIONS, PROBLEMS AND PROSPECTS

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This study described the mentoring relationship between doctoral nursing students and their committee chairs. Twenty-two public university doctoral programs responded to a request for names and addresses of their doctoral candidates. The Major Professor Mentoring Scale was used to measure the mentoring relationship. The survey also included demographic and open-ended questions regarding the student-committee chair relationship. Surveys were mailed to 269 doctoral students with an 86% return rate. A principal components analysis was performed to identify the structure underpinning the relationship.

The typical doctoral student in this sample was found to be a 44 year old Caucasian female, married with children, working full or part time while pursuing a PhD degree. Students traveled an average of 85 miles each way to campus and nearly half had selected their program based on its location. The typical committee chair was a Caucasian, tenured, associate or full professor between 46 and 69 years of age. The majority of chairs were married and had funded research projects. The students in the study reported knowing their chairs for an average of five years.

The study revealed that mentoring is occurring in the majority of relationships between doctoral nursing students and their committee chairs. Students identified many strengths and weaknesses in their relationships with their chairs although the relationship

appears to be largely positive. The mentoring relationship is composed of four principal components, the largest of which is psychosocial support. Dissertation support, role modeling and scholarly collaboration comprise the other three components. The factor receiving the most positive rating was role modeling, suggesting that students see their chairs as intelligent and hard-working. Students also report positive feelings about both the psychosocial and dissertation support they have received from their chairs. Students reported more neutral feelings about scholarly collaboration suggesting that this is not a frequent occurrence in the relationship. Demographic variables including age, sex, race, geographic distance and family status were not predictors for mentoring scores.

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CHAPTER 1

INTRODUCTION

Returning to school for a doctoral degree can be a daunting venture, one that is seldom undertaken lightly. The journey is an arduous one that can be made easier and more powerful by the presence of faculty who truly care about student progress. Reference books aimed at preparing students for the doctoral experience devote entire chapters to the importance of selecting with tremendous care a committee chair (Peters, 1992). The ideal chair will "give you moral support, champion you against your detractors within the department, help you get your first papers published, let you co-author papers with him, cheer for you as you defend your thesis in oral examination, and pull the strings necessary to get you a job" (Peters, 1992, p. 29). The description of the effective committee chair resounds with similarity to the concept of mentor as described in the literature of business and industry (Kram, 1983; Zey, 1984).

The term *mentor* comes from Homer's Odyssey. When Ulysses was fighting in the Trojan War, he entrusted his son's care to his friend, Mentor. Mentor protected, educated and socialized the child and introduced him to important others. The literature contains many contemporary conceptualizations of mentor, but Levinson's (1978) conception of the mentor as teacher, sponsor, exemplar, counselor, provider of moral support, and facilitator of the dream is often cited. Kram (1985) describes the mentor in business as an experienced, productive manager who relates well to a less-experienced

employee and facilitates his/her personal development for the benefit of the individual and the organization.

In a study of managers and subordinates in a business setting, Kram concluded that mentors serve two important functions: Career functions and psychosocial functions. Career functions include those aspects of relationships that prepare mentees for career mobility and promotion. Psychosocial functions, on the other hand, are those aspects of relationships that increase the workers' sense of self confidence, morale and identity. Noe (1988) validated Kram's findings by studying educational administrators, finding the same two primary factors in mentoring relationships. Jacobi, in a 1991 review of the literature on mentoring, similarly identified three primary components of the mentoring relationship: 1) emotional and psychological support, 2) direct assistance with career and professional development and 3) role modeling.

Research in business settings has suggested many positive outcomes associated with mentoring. Academic settings have similarly reported positive outcomes. In undergraduate academic settings, faculty contact with undergraduate students is correlated with greater student satisfaction (Astin, 1977) and student retention (Pascarella and Terenzini, 1978). In graduate settings, mentoring relationships have been associated with faster degree progress (Girves and Wemmerus, 1988). Davidhizer (1988) suggests that without the presence of a mentoring relationship with faculty, doctoral education is incomplete. Several studies have suggested that female doctoral students are at a disadvantage in graduate school because of the absence of sufficient numbers of same-sex mentors (Kjerulff and Blood, 1973 Cohen and Gutek, 1991). It is noteworthy that the

gender imbalance which has been cited as a threat to the development of mentoring relationships in many disciplines is practically non-existent in nursing as female-female faculty-student pairings are common.

The presence of mentoring relationships between doctoral nursing faculty and students has yet to be adequately explored. Undergraduate nursing education has placed significant emphasis on the faculty-student relationship as the context in which to learn the value of caring (Tanner, 1990; Diekelmann, 1990). The faculty teaching in undergraduate programs, charged with teaching the construct of caring, are largely graduates of doctoral nursing programs. In a discipline dominated by the construct of caring, one wonders whether the psychosocial component of the mentoring relationship is a factor found in the relationship between doctoral faculty and their students.

Nursing, as a profession, is experiencing a surge in theory development as the swelling pool of doctorally prepared nurse-researchers publish data affecting patient outcomes and costs. The tremendous need for scholarly nursing research begs the question of whether the career functions of the mentoring relationship are well represented in the doctoral programs that are preparing the next generation of nurse researchers. Nursing is a unique discipline in higher education, having an emphasis on caring as well as scholarship.

Faculty-student relationships at the doctoral level may be among the most powerful relationships in academia. However, many recent trends in higher education threaten the development of strong student-faculty bonds: 1) Increased faculty teaching loads which leave limited time for fraternization with students; 2) An emphasis on

faculty scholarship which consumes a large part of faculty time that might otherwise have been devoted to encouraging student scholarship; and 3) most recently, legal/moral concerns regarding the boundaries of faculty-student relating, making some faculty leery of informal student meetings for fear of claims of sexual harassment. Many university sexual harassment policies contain language banning fraternization between students and faculty altogether, leaving some faculty uncertain about how to travel and collaborate with doctoral students they are charged with mentoring (Dank and Fulda, 1998, The Chronicle of Higher Education, 1997).

Nursing has been defined as a caring profession which acknowledges the power of interpersonal relationships (Watson, 1985). The relationship between doctoral students and their committee chairs is a dynamic and powerful one. Several authors have identified two components to the mentoring process: a professional realm which involves assisting the protégé to develop needed career skills for research and professional work and a psychosocial realm which focuses on meeting the personal needs of the protégé for self esteem and a sense of worth. Nursing's dual concern with both scholarship and caring would suggest mentoring should be occurring at high levels.

Statement of the Problem

The present study attempted to determine the nature of mentoring relationships between doctoral nursing candidates and their committee chairs.

Purposes of the Study

The purposes of this study were:

1) to describe the mentoring relationship from the student's point of view.
2) to describe the principal components of the relationship between doctoral nursing students and their committee chairs.

Research Questions

In order to accomplish the purposes of this study, the research design was guided by the following research questions:

1) Do doctoral nursing students perceive themselves as having a mentor-protégé relationship with their committee chairs?
2) What strengths and weaknesses do doctoral nursing students identify in their relationships with their committee chairs?
3) What are the principal components of the relationship between doctoral nursing students and their committee chairs?
4) Does the psychosocial function predominate in the relationship between doctoral nursing students and their committee chairs?
5) What is the nature of collaboration between nursing doctoral students and their committee chairs?

Definition of Terms

Relevant terms were defined as follows:

Mentoring: A professionally centered relationship between two individuals, in which the more experienced one guides, advises and assists the development of the less experienced, often younger protégé (Hulbert, 1994).

Committee Chair: (Also called the major professor or dissertation advisor). The faculty member who chairs the doctoral student's dissertation committee.

Doctoral Candidates in Nursing: Students enrolled in a university nursing doctoral program who have completed coursework and qualifying exams for the doctoral degree.

Limitations

The limitations of the study were largely related to the use of mailed questionnaires. The response rate may be biased. The forced choice responses may leave insufficient room for variation in choices and there is an inability to interact with the participants in relation to their responses. The respondents to this mailing may not represent a normal sampling of the population under study. The use of a convenience sample limits the generalizability of the findings.

Delimitations

1. The study was restricted to doctoral candidates enrolled in public nursing doctoral programs in the United States.
2. Due to the cost constraints of international mail, only students with addresses in the United States were invited to participate.

CHAPTER 2

REVIEW OF THE LITERATURE

Introduction

Mentoring is defined as a "professionally centered relationship between two individuals, in which the more experienced one guides, advises, and assists the career of the less experienced, often younger protégé" (Hulbert, 1988 p. 5). The term was popularized by Donald Levinson and colleagues (1978), who in a longitudinal study of the lives of forty men, found that many of them had been guided in their early years by older men he called "mentors". The term has been used by some academics to describe effective student teacher relationships (Danoz, 1986). It may be particularly useful in describing the relationship which may occur between doctoral students and their committee chairs.

Mentoring and Adult Development

Levinson, in a study of the normal development of mid-life men, conceptualized the mentor relationship as one of the most complex and developmentally important a man can have in early adulthood (Levinson et al, 1978). The mentor was described as an older man with greater experience and seniority in the world. Levinson conceptualized the mentor relationship as occurring in same-gender or cross-gender pairs, although his original study focused on a sample of men, who reported having male mentors. While the mentor is described as teacher, sponsor, guide, exemplar, counselor and moral

supporter, he has one other function which is described by Levinson as the most important to development: "To support and facilitate the 'realization of the Dream'" (1978, p. 98). Levinson likens the mentor to the "good enough" parent portrayed by Winnicot (as cited in Levinson et al, 1978) as a parent who gives a child space to play creatively and therein safely learn who he is. While mentors are neither parents nor peers, they similarly give their protégés room to grow, room to make mistakes within a context that is supportive and safe. Levinson argued that the mentor could not be entirely peer because he would not be able to represent the advanced level the protégé was aspiring to. Neither could he be entirely parent because the protégé would fail to move toward the ultimate goal of the relationship: Peer standing.

Levinson's subjects, 35-45 year old men, described their mentors as being 8-15 years older. The developmental theory that evolved from his ethnographic study suggested that young men see themselves as novices to a more expert adult. Through a balance of giving and receiving, the younger man becomes increasingly experienced eventually seeing himself as "evolved" at which point the relationship becomes more mutual or ends. Levinson conceptualized mentoring relationships as varying in intensity, even occurring, for some, on a symbolic level between individuals who have never met. Mentoring relationships can be healthy and beneficial to individuals or they can be flawed. Mentees often feel admiration, respect, appreciation, gratitude and love for their mentors but they can also feel resentment, inferiority, envy, and intimidation (Levinson et al, 1978).

Levinson's work has important implications for understanding the dynamic relationship between doctoral students and their committee chairs. During the doctoral experience, a student oscillates between feelings of tremendous promise and tremendous self-doubt. The mentee is an aspirant who wonders endlessly, "Can I really do this?"; "Can I ever be what he/she expects of me?" It is not uncommon for doctoral students to alternately feel at one moment like a scholar and at another like a fraud. Effective mentors who conceptualize their role as being part parent/part peer have the potential to make the journey one which gives the candidate room to grow, learn and make mistakes while preserving a sense of self and the vision of the dream.

Levinson conceptualized the mentor relationship as lasting 2-3 years on average and 8-10 at most. Sometimes ending abruptly with a geographic move or death, sometimes ending naturally after a cooling-off period, and sometime ending intensely with conflict and bad feelings on both sides. The relationship, once over, remains meaningful for many as the mentor's vision becomes an intrinsic part of the protégé. The ability to integrate significant people into one's life remains an important developmental step in Levinson's theory of adult male development.

Research on Mentoring

It has long been assumed that mentoring is beneficial, though the empirical data are mixed. The construct has been defined in myriad ways in the literature making it difficult to compare outcomes. A classic study by Shapiro, Haseltine and Rowe (1978) identified 5 roles descriptive of advisory relationships which facilitate the ascent into leadership positions in management fields. The roles ranged from peer pal on one end of

the continuum to mentor, at the other extreme. Defining the mentor as a paternalistic other who assumes the role of teacher and advocate, this study identified the mentor as the quintessential advocate, rising above the roles of sponsor, guide and patron. Defined in this classical way, one finds that mentoring is fairly rare.

Not all studies have constructed the role as strictly. In a study which examined mentoring between professors and undergraduate college students, Ekrut and Mokros (1984) asked students to identify a professor who "has had the greatest impact on you by demonstrating the kinds of commitments, skills and qualities that you see as important for yourself" (p. 400). Using this loose definition, the study found that all 723 subjects were able to identify a faculty-mentor. Twenty percent of the students, however, characterized the relationship as one of admiration from a distance with no direct contact, which is quite different from the intense interpersonal relationship other authors have studied. In a literature review on mentoring, Jacobi (1991) identified at least 15 different definitions of mentoring used in the professional literature.

The nursing literature has added confusion to the definition of mentoring by using it to describe a number of activities including peer-support, precepting, and role modeling (Yoder, 1990; Jowers and Herr, 1990). Mentoring is often used to describe activities occurring within a nursing orientation, internship or residency program, while these activities could more accurately be called precepting or role modeling. When a new nurse is hired, for example, the individual providing orientation to the new environment and its policies may loosely be called a mentor. However, this relationship is often short-lived with pre-determined boundaries and a list of skills which must be mastered. There

is often no psychosocial component to this relationship, typically because of its short-term duration. Talarczyck and Milbrandt (1988), for example, have described a hospital program in which mentors (experienced nurses) were paired with new graduate nurses for a 3-month internship program to promote competence and independence in the new graduates. While the program participants describe having positive experiences about participating, this brief relationship is not the same as the lengthy, trusting mentoring relationship described by Levinson (1978) and Shapiro (1978). A preceptor is responsible for easing the immediate transition of a new employee while a mentor, in Levinson's classical sense, has a more long-term responsibility with broader functions.

Two broad functions of mentoring have been widely cited in the literature: Psychosocial functions and career functions (Noe, 1988, Wilde and Schau, 1991, Schroeder, 1994, Waldeck et al, 1997). Career functions include those aspects of the relationship that prepare mentees for career mobility and promotion. It includes such activities as coaching, sponsorship, exposure and visibility (Yoder, 1990). Psychosocial functions, on the other hand, are those aspects of the relationship that increase the mentee's sense of self confidence, morale and identity. These two functions, while first identified by Kram (1985) in a management study, were validated by Noe in a study of educational administrators (1988). Several recent studies using factor analysis have validated these findings in a variety of disciplines (Schroeder, 1994, Waldeck et al, 1997). In comparing the effects of these two broad functions, most studies have found that mentees report more psychosocial benefits than career-related benefits (Noe, 1988, Wilde and Schau, 1991, Schroeder, 1994, Waldeck et al, 1997, Schokett et al, 1985).

While a psychosocial outcome is seen by most as beneficial, one nursing author argues that a mentoring style that helps students develop self confidence is ineffective if it does not also work directly with students on scholarly tasks (Meleis et al, 1994).

Outcomes of Mentoring

Authors have found correlations between mentoring and career success (Riley and Wrench, 1985), job satisfaction and promotion (Fagenson, 1989), research productivity and publication rate (Cronin-Hillix et al, 1986). While many studies have found a correlation between mentoring and success, oftentimes this correlation has been misconstrued as cause. Jacobi (1991) notes that the type of individual who is likely to catch the attention of a successful mentor is also the type of individual who is destined for success. Unfortunately, in studies of student success it can be difficult to control for the effects of confounding variables. Bean and Kuh (1984), for example, conducted a study correlating undergraduate GPA with faculty contact, knowing that faculty contact has been long thought to be a predictor of student success. However, they found that many other confounding factors co-vary with faculty contact including campus organization membership, time spent talking in class, and contact with non-faculty advisors, making it difficult to identify which, if any, of the variables actually contribute to success.

In a study exploring the mentoring experiences of 101 baccalaureate nursing deans, only 42% reported having had a mentor (Alexander, 1990). There was no difference in self concept among deans who had been mentored and those who had not. Deans who had been mentored were no more likely to have mentees than those who had

not, suggesting that past experience with mentoring was not a predictor for a dean's choice to have a mentee. However, in a study of mentoring behaviors of senior nursing faculty in top rated colleges of nursing, Williams and Blackburn (1988) found that senior faculty who actively mentored junior faculty were more likely to have been mentored as graduate students (62%) than those who did not (34%).

Lee and Nolan (1988), in a survey of Cooperative Extension administrators, reported that while 93% of respondents felt mentors were important to career advancement for women, only 47% of the women administrators in the study had mentors. Similarly, in a study profiling 92 Nurse Scientist/Scholars only 36% reported receiving the support of a mentor sometime during their careers (Kashka et al. 1994). In both of these studies, career success for women subjects had occurred in the absence of mentoring, suggesting that while mentoring may be beneficial to proteges it is not a prerequisite to success.

Sexual Harassment Policy and Mentoring

In 1984, Dzeich and Weiner stated that sexual harassment of college students by their professors is a fact of modern-day campus life. Their portrayal of the "lecherous professor" as a middle-aged male suffering an arrested adolescence or a professional mid-life crisis was a warning to all women on campus: You are not safe. During the 1980s, sexual harassment cases found their way up to the Supreme Court and the issue received a great deal of press on both the local and national levels. Alarming statistics were published reporting, for example, that 30-40% of graduate women had experienced some form of sexual harassment by faculty or administrators (Sandler and Shoop, 1997) and

that 49% of untenured faculty women at Harvard reported experiencing some form of sexual harassment from someone in authority (The Chronicle of Higher Education, 1983).

The early response of university administrators to the discovery of this new campus crisis was heightened concern. But as the number of lawsuits on record increased and liability concerns mounted, universities began developing sexual harassment policies with training sessions aimed at sensitizing faculty and staff (de Albuquerque, 1998). Consistent with state and federal sexual harassment legislation, university policies clearly instructed faculty that quid pro quo arrangements as well as the creation of a hostile environment for students would not be tolerated. Many policies contained language banning fraternization between students and faculty altogether (Dank and Fulda, 1998, The Chronicle of Higher Education, 1997).

Few attempts have been made to examine the effects of these policies on student-faculty relationships. At the doctoral level in particular, the lines between social and professional fraternization between faculty and students are often blurred. It is common for student-faculty meetings to occur during casual meals out or in each other's homes. Effective faculty-student dyads often spend time together researching and writing and/or traveling to present at professional meetings. In the current climate, are such relationships advisable?

"The advisor is correctly seen as the 'significant other' for the student's journey; the ongoing dialogue with the advisor infuses the process with its intellectual and emotional tone" (Bargar and Mayo-Chamberlain, 1983, p. 420). There is both an

intellectual and emotional quality to the doctoral advising relationship, and it is subject to all of the strengths and weaknesses of human relationships in general. Robinson and Reid (1985) examined sexual contact between psychology graduate students and their faculties and reported that nearly half had experiencing some form of sexual seduction during their years as students. However, it must be noted that flirting (73%), joking (70%) and excessive attention (65%) were the behaviors most often experienced. Are these behaviors evidence of epidemic sexual harassment? A study at Harvard yielded similar questions. Reporting that 49% of untenured women faculty had experienced sexual harassment, one discovers that "looks, gestures or verbal harassment" accounted for one-third to two-thirds of these incidents (The Chronicle of Higher Education, 1983). Is it possible that some of the described behaviors are an integral part of the process of human relating for certain individuals? If we ban such behaviors from student-faculty interactions, can doctoral students develop true relationships with their major professors?

Four to six percent of undergraduate students report having been sexually harassed by professors in strict quid pro quo situations (Stockdale and Vaux, 1993), and this form of harassment is undeniably unacceptable. However, the more common and subjective sexual harassment complaint, the creation of a "hostile environment" is much more open to interpretation. Professors, oftentimes constrained by strict sexual harassment policies which may ban fraternization with students, are conflicted about the safe boundaries of interaction with students. And yet, it is within extra-university contexts such as conferences, symposia and dinner meetings that historically many committee chair-student relationships have taken root. In an article in Feminist Teacher,

Mary Ann Cain discusses her relationship with her major professor, Lil, who during a maternity leave continued to meet with her research students:

> Although Lil was on leave, she continued to meet with our research group. She invited us to her home where she served us refreshments in the comfortable living room she used mainly for guests--in contrast to coffee in styrofoam cups and litter-strewn barren classrooms on campus. Being welcomed as a guest into her home changed the context of our relationship, which until then had been defined by institutional settings which discourage conversation, intimacy and trust (Cain, 1994, p. 113)

The current legal climate leaves many faculty leery of informal student meetings and may in fact make some uncomfortable if feelings of closeness and intimacy begin to develop. While cross-gender faculty student pairs may be more likely to suffer from discomfort of this kind, same-sex pairs are not immune to the effects of the litigious and overly cautious environment.

Gender and Mentoring

Women face unique stressors when undertaking doctoral study. Women doctoral students, often managing multiple household roles, report more role conflict than their male peers (Hite, 1985). Women also perceive less support from faculty than their male peers even in traditional disciplines that are female dominated (Hite, 1985).

Several studies have looked at the influence of gender on mentoring with two major issues emerging: the availability of women mentors and the outcomes of cross-gender mentoring. It has long been assumed that same-sex pairing enhances mentoring

relationships although the empirical data in this area are mixed. In 1977, Kanter first reported the difficulty women have finding mentors in the managerial workplace. However, changes in the gender composition of workplace environments since the 1970s have been pervasive, with many more women rising to positions of power in both corporate and academic life. While Burke (1984) found no gender differences in the prevalence of mentoring among managers, Braun (1990), in a random sample of 150 lawyers, found all men and 94% of women to have male mentors. It is likely that some disciplines continue to have inadequate numbers of women in positions of power to mentor. Rowe (1989) has identified an advantage in cross-gender mentoring for academic women in that male mentors may help academic women to better understand those who run educational institutions.

The assumption of superiority of similarity in pairings (e.g. same-sex pairings) is likely based on principles of identification. One assumes that men will identify more readily with other men and women with other women. In a study of 42 mentor-protégé pairs from a wide range of fields and a wide range of organizational levels, Bowen (1985) found that more intense psychosocial mentoring occurred where identification was lower. In this study, all proteges were female, some with male mentors and some with female mentors. An interesting finding in this study was that there was a negative correlation between identification and length of the relationship, suggesting that identification is highest at the beginning of the relationship. Bowen suggests that strong identification may be what brings people together in the introductory phase of the mentoring relationship, but it does not appear to be essential to effective mentoring thereafter.

Bowen (1985) has identified several problems unique to cross-gender mentoring including snide remarks from co-workers (e.g. “How is the romance?”). Family resentment (from husbands) surrounding mentor demands on protégé's time occurred only in the cross-gender group. This outcome may illustrate cultural gender-role expectations regarding women's division of responsibility between work and family. In other studies of cross-gender mentoring, a variety of outcomes has been reported. In a study of mentoring among 177 graduate students in schools of education, Wilde (1991) found no differences based on gender of mentor or mentee, although this study, like Bowen's (1985), only looked at successful mentor-mentee pairs. Other studies have suggested that students and faculty of the same gender interact most comfortably (Berg and Ferber, 1983, Adler, 1976). In a study of 78 psychology doctoral students asked to identify a faculty role model, 75% identified a same-gender model (Gilbert, 1985). Of note in this study, the average age of women doctoral students was 29.7 years and only 36% were married. This is in sharp contrast to nursing, where the average doctoral student is older, married and midcareer. Older, mid-career students may have different needs developmentally and may be looking for different qualities in their mentors. Similarly, older, married students may experience different outcomes from cross-gender mentoring.

While availability of women mentors might be an issue in some disciplines, it is not an issue in nursing. Greater than 90% of doctoral students and doctoral faculty are women, so same-gender pairing is common. It is assumed that female-female pairings are inherently superior to cross-gender pairings but it may be naïve to think so. There

are few studies which have examined the outcomes of same-gender female faculty-student pairs. This paucity of studies is likely due to the historically small number of high ranking female professors in doctoral education. Because of the inadequate empirical data, one cannot say with certainty that same-gender pairing is an advantage in nursing doctoral education. The power hierarchy that exists in doctoral advising relationships may give rise to many other opportunities for abuse. And some argue that female-female faculty-student pairings may put women students at a disadvantage, as faculty women have historically lacked power and authority in the academy (Sandler, 1986).

Heinrich (1995), in a qualitative study of 22 women doctoral recipients, found that women students were reluctant to enter into conflict with female advisors. While women advisees were able to express feelings of disappointment and anger directly to their male advisors, no woman described directly confronting a woman advisor with such feelings. Rather than confront their advisors, women tended to protect the advisory relationship by assuming inauthentic roles that ultimately constricted their personal and professional growth. Heinrich (1995) argues that many women in the study acted as the 'good daughter', replicating relational patterns they had experienced with parenting figures. The ethic of caring described by Gilligan (1982) as a moral imperative for many women may keep women students from asserting their needs with women advisors. Women students may instead place a priority on the need to maintain community and harmony even at their own expense.

When examining the relationship of female doctoral students with their female committee members, Heinrich found that two dynamics were occurring. Mentoring advisors were found to share power collegially with the relationships gradually becoming "professional friendships". "Silent betrayal", on the other hand, occurred when advisors stood by as students floundered or were victimized by the program bureaucracy or by committee members. "These advisors betrayed advisees with their silence while advisees simultaneously betrayed themselves by keeping silent about their needs and their feelings of frustration, disappointment or anger with female advisors." (Heinrich, 1995, p. 450) Women students with male advisors were able to express their feelings of disappointment and anger when their needs were not being met. However no student in the study ever confronted a female advisor with similar feelings. Instead they maintained harmony at all costs.

The mixed findings of contemporary studies suggest that dynamics other than gender may be necessary to explain the success or failure or mentoring relationships. The use and abuse of power, for example, may play a more important role than gender.

Academic Mentoring

Danoz (1986) describes the academic mentoring process as one which proceeds developmentally. At the beginning students may select their mentors purely on the basis of their authority, but over time students begin to ask "Who are you as a person", "Can I trust you?" Danoz argues that self-disclosure on the part of the teacher/mentor is a crucial part of the full evolution of a mentorship. This disclosure may involve comparisons and a search for commonalties between mentor and mentee. At the

beginning of the relationship trust may be assumed by virtue of the authority of the teacher, but as the relationship progresses over time, trust must be sustained by mutual commitment. Danoz asserts that academic mentors do three distinct types of things: "They support, they challenge and they provide vision" (1986, p. 212). This definition is consistent with Levinson's original construct.

In a study of 347 faculty at one midwest university, Sands and colleagues (1991) found that among faculty members who had been mentored, the largest proportion reported being mentored as graduate students. In a study of factors that contributed to increased time to complete a doctoral degree, Nerad and Cerny (1993) found that faculty mentoring was one factor contributing to shorter time to degree and lower attrition rates. In a study identifying factors which hinder completion of the dissertation, Tlucczek (1995) interviewed successful graduates, ABDs (all but dissertation), and dissertation committee members. Among the 4 most significant obstacles to completing the dissertation cited by the ABD group was a poor relationship with the chairperson. Girves and Wemmerus in a 1988 study of doctoral student progress found that treatment of doctoral students as junior colleagues by advisors accounts for much of the variability in doctoral student degree progress. In a qualitative study of women doctoral students' persistence, Kerlin (1997) found the advisor/advisee relationship to be the most influential relationship women have while pursuing the doctorate. She found the advisor to be crucial not only at the end of the program during the dissertation phase but rather throughout the program. Gender patterns did not predict power struggles in the advisor

relationship in this study. Women students with women advisors faced power struggles as often as not.

A large body of literature suggests that frequency and quality of contact with faculty is an important predictor of academic success (e.g. Kjerulff and Blood, 1973; Astin, 1977; Tracey and Sedlacek, 1985) In a 1981 study of graduate students across six disciplines in one university setting, Jenkins (1983) found that male students spent more than twice as much time with advisors as did female students. Despite the differences in time spent, satisfaction with the advisor was not significantly different between groups. So while males and females differed significantly in time spent, they did not differ in satisfaction. Jenkins (1985) conducted a larger follow-up study in 1985 which sampled two universities and failed to replicate her original results.

Waldeck, et al. (1997) generated a profile of graduate student proteges in a study of 145 students across 12 universities. Eighteen percent were working on doctorates while 80% were completing masters degrees. When seeking mentors, students most frequently chose middle aged full professors, typically professors from their own departments who served as their thesis or dissertation advisors. The mentorships typically lasted 13-18 months. The typical protégé in this study was 30 years old, single (60%) and childless (80%). This profile is in sharp contrast to the typical nursing doctoral student. While doctoral students in the hard sciences are often full time students in their mid 20s, nursing doctoral students tend to be older, often in their 40s and 50s. Many nursing doctoral students are full-time faculty members, some with tenure on their own campuses. Many have had distinguished careers as clinicians, teachers and

administrators before beginning work on the doctoral degree on a part-time basis. They are often married and raising children in addition to working outside the home. Because they are choosing this path at mid-life they have less freedom to move near to a doctoral program and many commute long distances to complete their degree requirements. The demands on their lives are multi-faceted and these social demands may impinge upon the time they have to form relationships with faculty.

Mentoring: A Feminist Analysis

Advising relationships, by their very nature, involve an unequal balance of power. The professor has the privilege of holding both positional and expert power. Some authors describe the relationship as entirely undemocratic (Phillips, 1979, Auster, 1984, Braun, 1990). Johnstud (1991) suggests that the dangers inherent in traditional mentoring models are not gender-related but are rather a function of the imbalance of power within the relationship. The abuse of power within advising relationships is not limited to men mentoring women, but can also occur between same-gender advising dyads.

Meleis and colleagues (1994) describe a feminist mentorship model as one which incorporates principles of feminist pedagogy. They condemn hierarchical mentorships which typically involve sage advisors providing guidance to naïve students. Meleis argues that such mentorships are dominating, placing the skills and wisdom of the doctoral student in a subordinate position. She argues for a collaborative mentorship featuring negotiated relations, mutual interactions, facilitative strategies and empowerment. She defines "negotiated relations" as the sharing of power among all committee members and consultants, and encouraging the input of many different

individuals for substantive, methodological and theoretical needs. "Mutual interactions" are described as a dialogue between colleagues as an alternative to unilateral, paternalistic communications, while "facilitative strategies" refer to the collaborative securing of financial support, publication and presentations. It is a noble model, worthy of further consideration, but it fits poorly in the bureaucratic model of higher education which is the current predominant model.

Johnstud (1991) criticizes the developmental models (e.g. Levinson et al, 1978) which suggest that mentoring leads to individuation. She argues for a developmental model that constructs development as movement toward connectedness, caring and inclusion. These constructs are consistent with Gilligan's (1982) work suggesting that connection and community are key components of a feminist morality. In support of this assumption, she sees mentoring as a process by which one individual discovers his/her interdependence with others. This model may have particular utility in doctoral education in the professions (such as education and nursing) because students in these disciplines often arrive at doctoral education mid-career. This model, which suggests that the student can assume an interdependent rather than dependent position to the advisor, may be more comfortable for the middle-aged student who brings a wealth of experience to the domain of study. While it is important to acknowledge the experience mid-career students bring, it would be unwise to assume that they bring all the skills they need to become scholars. There is, even for mature students, a process of transformation described by Aisenberg and Harrington (1988) as one which is both empowering and confusing and which ultimately requires the building of a new identity.

Johnstud (1991) envisions the doctoral program mentor as one who is herself beyond this period of adaptation, one who has achieved a sense of identity as a scholar. She describes the doctoral student-mentor relationship as having three stages. The dependent stage occurs at the beginning of the relationship when the protégé is taking coursework and still has difficulty seeing herself as a scholar-in the-making. As the student is encouraged to seek her own voice, she realizes she is separate from her mentor and begins to test her skills. The independent stage begins as the protégé takes comprehensive examinations and begins work on a dissertation. She gains independence and establishes a purpose that is distinct from her mentor. While asking such questions as "Can I do independent work?", "Can I ask for help and still be independent?", the protégé tests her boundaries to discover what feels safe. During the final interdependent stage, the relationship becomes more reciprocal as the dyad moves toward a mature, intimate relationship. Thus the endpoint of this model is connection and not individuation.

While the verbiage of Johnstud's model is distinctly feminist, the model is not altogether different from Levinson's (1978) original construct. And her assumption that doctoral student-mentor relationships evolve to a point of mutual intimacy is noble though idealistic. Her theoretical connection of feminist theory with a model of mentoring, however, is worthy of study, though it currently lacks empirical evidence.

Bateson (1990) suggests that continuing development, especially for women, involves the discovery that difference can be a source of strength. American culture, with its roots in democracy, holds symmetry as a highly valued ethic. Thus there is some

discomfort with the concept of mentoring and its inherent lack of equality. Bateson argues that feminist insistence on referring to mentoring as collegiality reveals our quest for symmetry. Mentoring, in Bateson's terms, is interdependence based on difference. This relationship is not symmetrical but that does not mean is has to be manipulative or unfair. On the contrary, she states that "compassion is a more complex idea than equality" (Bateson, 1990, p. 115). Bateson argues that symmetrical relationships are limiting and that to maximize development, one should attend to multiple dimensions of difference. Thus, she would support the notion of blending students and committee chairs with different background characteristics as a means of broadening each one's sphere of understanding.

Doctoral Education in Nursing

The first program to offer a doctoral degree in nursing was Teachers College in Columbia University in 1924 (Allen, 1990). Granting an EdD, they were preparing educators to teach nursing at the college level. The first PhD program in nursing was established in 1934 at New York University. The University of Pittsburgh followed with a PhD program in the 1950s which initiated a new emphasis on the development of clinical research in nursing. The third program model, the DNS/DNSc (Doctorate in Nursing Science), developed at Boston University was based on the development of nursing as a practice discipline. While the three program models originally had separate aims, they are now fairly similar in their objectives. As the discipline of nursing has developed, nursing leaders have met to examine the needs of the profession with regard to doctoral education. Many programs have incorporated these changing imperatives into

their mission. In a recent study of 44 doctoral programs (31 PhD, 11 DNS and 1 EdD), program philosophies could not be distinguished from one another and the program curricula were strikingly similar (Zeimer, Brown, Fitzpatrick et al, 1992). A fourth program type, the ND (nurse doctorate) was introduced in 1978 at Case Western University and is entirely different than the other three. Modeled after other professional practice disciplines such as medicine's MD degree, the ND prepares entry level clinicians at the doctoral level. It's aim is to improve the entry level credential of practicing nurses to better reflect the complexity of today's clinical practice environment.

In 1997, there were 68 doctoral programs in nursing, with 12 new programs being planned (AACN, 1998). The majority offer the PhD degree, a few offer the DNS and Teachers College remains the one program offering the EdD degree. Patterns of enrollment for doctoral program are reported to be random with some years noting increases and some years noting decreases in enrollment. In 1997, 2830 students were enrolled in doctoral nursing programs with 433 graduates (AACN, 1998). The students are largely female (94.3%) and White (80.1%) with 5.2% being Black, 1.6% Hispanic and 3.2% Asian (AACN, 1998).

Mentoring in Nursing Doctoral Education

Faculty mentoring is an important component of doctoral education. It is often mentioned in doctoral program literature and several programs recently reported limiting their enrollments in an effort to keep mentor-to-student ratios small (AACN, 1996). The University of Colorado, for example is "downsizing our program a bit…We want to ensure that we maintain a balance of enough senior and research faculty who can mentor"

(AACN, 1996, p. 2). Olson and Connelly (1995), in a qualitative study of the experiences of 4 doctoral students paired with research professor mentors, report that mutual benefits were derived for both faculty and students. Working collaboratively for 11 months, the pairs all anticipated co-authoring papers together. The two common outcomes of mentoring, professional and psychosocial development, were noted, but the faculty mentors were quoted as having learned from their proteges as well, often in areas such as computer skills.

In discussing the need for doctoral programs to produce nurse scholars with skill in research, Fitzpatrick (1991) states: "It is not only the research conducted by an individual during his or her professional life that matters, but, even more essential, is the development of critical thinking and the refinement of analytic thinking that results from extensive encounters with the research process…" (p. 173). Mentoring is discussed several times in a recent bulletin published by the American Association of Colleges of Nursing (AACN, 1996). Anne Pierce, former Dean of Columbia University's doctoral program states, "We know that one-on-one mentoring with an expert helps someone to learn", discussing a recent program initiative requiring students interested in teaching careers to work in a mentored teaching experience before graduating. Similarly, the University of Virginia is reported to be planning a one-year mentorship for doctoral teaching assistants (AACN, 1996). In both examples, the term "mentoring" is used to describe a practicum or apprenticeship experience which may or may not be consistent with Levinson's original construct.

When examining their role as potential mentors, it must be noted that doctoral nurse faculty have a fairly short research career compared with other disciplines. In 1997, the average age of a doctorally prepared full professor was 55 with associate and assistant professors at 52 and 49, respectively (AACN, 1998). These numbers suggest that turnover from retirement alone is likely to be fairly high and doctoral students may recompose their committees many times before completing a part-time program.

Nursing doctoral students tend to be older, mid-career students, often faculty themselves, studying part-time while paying their own way through their programs. As a result of their mid-career and family status, many are unable to make geographic moves to be closer to a program. Limited numbers of fellowships and grants to support doctoral nursing education leave most students forced to study part-time while working full-time to support themselves. "It is not ideal to pursue doctoral education on a part-time basis. Full-time employees who are simultaneously pursuing doctorates can become intellectually fatigued and physically exhausted." (Meleis, 1994 p. 178) Meleis and colleagues suggest that faculty interested in rigorous scholarly standards organize financial structures to allow the majority of students to learn full time.

Summary

Despite more than 20 years of writing, mentoring remains an elusive concept. Assumed to be a positive force in relationships, and referred to widely in business, industry and education it has become a norm to strive for. There is no doubt that doctoral students entering into a relationship with a committee chair seek the support of an

experienced other to guide their journey. Unfortunately, the dynamics of this relationship are still largely unknown.

CHAPTER 3

PROCEDURES FOR THE COLLECTION AND ANALYSIS OF DATA

This study utilized a non-experimental survey design to assess mentoring relationships between doctoral candidates in nursing and their committee chairs. The purpose of the design was to assess the strength of mentoring relationships and to identify the principal factors of the mentoring relationship.

Population and Sample

The population under study consisted of doctoral candidates in nursing programs at public universities in the United States. Sixty-six nursing programs in the United States were identified as currently offering the doctoral degree with an estimated total enrollment of 2,890 students (AACN, 1996). Forty-five of these programs were at public universities. A letter was sent to the registrar at each of the 45 public university doctoral programs requesting a list of names and addresses of students currently enrolled in the nursing doctoral program. The request stipulated that if it were possible to limit the list to students at candidacy status, that was preferable. The request for student names and addresses was in compliance with federal law regarding the confidentiality of student records. The Family Educational Rights and Privacy Act (FERPA) is a federal policy which permits public universities to release directory data without student consent, unless the student has specifically requested that directory data be withheld. Directory data is defined in the statute to include student names, addresses and major field of study.

Registrars were advised that they could omit students who had requested that directory data be withheld.

Each student on the registrar list, with an address in the United States, was entered into a database. Each was sent a personalized cover letter describing the study along with a short screening survey designed to identify progress in the program. The cover letter explained the research topic and invited students to indicate interest in participating by completing the screening survey which was enclosed. The screening survey contained four questions. The first two questions asked if the student were enrolled in a doctoral program and if they had a committee chair. The third question asked students about their progress in the program. The fourth question asked about the students willingness to participate in the study if he/she met the inclusion criteria. A stamped envelope, pre-printed with the researcher's address was enclosed to facilitate ease of return. Screening surveys were mailed out over a three month period as address lists became available from university registrars. A slight modification in this approach was used for two schools whose nursing program coordinators wanted their students to participate in the research but preferred not to release the students' addresses. In these two cases, the researcher mailed a pre-determined number of sealed, stamped envelopes containing all of the screening materials to the program coordinators who had them addressed and mailed from their offices.

When the screening surveys were received each student was entered into the database as either a subject or a non-subject. Students who indicated that they 1) were currently enrolled in a doctoral program, and 2) had completed their doctoral coursework,

met the inclusion criteria to be subjects in the study. Students who indicated that they had completed the degree within the previous 12 months were also included. Students who indicated that they were still completing coursework were excluded because they likely lacked sufficient contact with their committee chairs to complete the questionnaire. Students who had completed the degree longer than 12 months ago were excluded due to concerns about recall bias. Students meeting the inclusion criteria and expressing willingness to participate were entered into the database as eligible subjects.

Data Collection

Within one week of receiving their screening survey, eligible subjects were sent the data collection materials. This included a cover letter, a demographic questionnaire, the Committee Chair Mentoring Survey, a postage-paid survey return envelope and a postage-paid postcard to assist with follow-up. The cover letter identified the researcher's background, explained the purpose of the study, discussed provisions for anonymity, offered a telephone number and e-mail address for questions and listed information regarding approval of the study by a university human subjects committee. Subjects were informed that the survey was entirely anonymous and that no individual student could be matched with his/her responses.

A stamped, addressed, postage-paid postcard was preprinted with the subject's name and address and contained two questions to be answered before mailing. Participants were instructed to mail this postcard to the researcher separately from the research survey to ensure their anonymity. Receipt of the postcard allowed the researcher to collect survey data anonymously while still keeping track of the participants. The first

question asked if the subject had completed the research instrument. Students answering either yes or no were eliminated from follow-up. The second question invited students to request a copy of the research results. Subjects who failed to return their post card within three weeks were sent a reminder postcard.

Instrument

The instrument used in this study, the Major Professor Mentoring Scale (Schroeder, 1994), is a Likert-scale list of 48 items descriptive of a mentoring relationship. Subjects responded to the 48 items using a 7 point likert scale (1 = strongly disagree, 2 = disagree, 3 = slightly disagree, 4 = no opinion, 5 = slightly agree, 6 = agree, 7 = strongly agree). Schroeder subjected the scale to a principal components analysis and suggested that the scale is composed of two subscales: The Psychosocial Subscale comprises 23 items and the Professional Subscale comprises 25 items. The Psychosocial Factor includes the following dimensions: 1) respecting students 2) giving professional support and 3) counseling/friendship. The Professional Factor includes 1) facilitating students' timely completion of degree, 2) informing students of department and college procedures 3) helping students to design and write their research projects, 4) helping students to develop professional skills, and 5) increasing the visibility of students. Scores range from one to seven on each of the scales, with higher scores indicating more positive responses. Subscale scores can be obtained by averaging the items loading on the Psychosocial and Professional Factors. A total score is calculated by averaging across all items included in both subscales.

Content validity refers to the sampling adequacy of the content (Kerlinger, 1986). Kerlinger (1986) acknowledges that this is a judgmental task which involves the researcher's judgment about whether the items represent the universe of content being studied. In developing the instrument, Schoeder (1994) analyzed graduate student responses to a questionnaire regarding important dimensions of the major professor-graduate student relationship. She based her instrument on behaviors students believe major professors should perform and the aspects of their relationships rated as negative and positive by students.

Construct validity refers to the underlying meaning of the constructs under study (Kerlinger, 1986). Factor analysis is a powerful method of construct validation. Schroeder administered her mentoring instrument to 1,018 graduate students from three universities. With a return rate of 45.6%, her final sample included 195 men and 222 women from eight different disciplines. Eighty percent were pursuing doctoral degrees with almost 85% of the sample coming from the disciplines of psychology, biology, chemistry, sociology and physics. An exploratory factor analysis performed by Schroeder (1994) conceptualized the scale as being composed of two factors: A professional factor and a psychosocial factor. These two factors are consistent with the factors identified in the literature as being central to mentoring relationships (Noe, 1988, Kram 1985).

To study the construct validity of a measure it is helpful to compare it to other measures (Kerlinger, 1986). Convergent validity was demonstrated by a positive correlation with the Carter Mentor Scale (1983). The Carter scale measures graduate student perception of the adequacy of the mentoring they received from one older

professional while in graduate school. A comparison of Carter Mentor scale scores with scores on the Major Professor Mentoring Scale yielded correlations from .62-.79 on both the total scale and subscales. The Major Professor Mentoring Scale also correlated positively with several other measures predicted to correlate with mentoring including the Satisfaction with Life Scale and the Graduate School Satisfaction Measure (Schroeder, 1994). Discriminant validity was determined by asking students who had changed major professors due to dissatisfaction to complete the survey as it applied to both their former and current chairs. The former committee chair received significantly lower scores on the instrument than current ones.

Schroeder computed internal consistency reliability coefficients for both the subscales and the total scale. Cronbach's alpha for the Psychosocial scale was .91, for the Professional Subscale was .90 and for the Total Scale was .93.

Thirty demographic questions followed the Major Professor Mentoring Scale on the mentoring survey. Questions 1-18 were multiple choice questions about the subject while questions 19-30 asked similar background characteristics of the committee chair. These demographic variables, including age, gender, ethnicity, and marital status emerged from a review of the literature as possible predictor variables for mentoring. Questions 31-35 were open ended questions inviting subjects to provide additional information about their relationship with their committee chair.

Procedure for Data Analysis

The demographic questionnaires were analyzed to summarize characteristics of the student participants. The responses were analyzed using the SAS system for statistical

analysis. Responses to the 48 item survey were subjected to a principal component analysis using ones as prior communality estimates. The principal axis method was used to extract the components, and this was followed by a varimax (orthogonal) rotation. This analysis was undertaken to detect the structure present in the relationship between variables.

Research Questions

1) Do doctoral nursing students perceive themselves as having a mentor-protégé relationship with their major professors?

The percentage of students reporting a mentoring relationship with their major professors, as identified in survey item 30, was reported. Total scores for the Major Professor Mentoring Scale were computed. (Scores nearing 7 suggest the presence of a mentoring relationship while lower scores suggest the absence of such a relationship.). A general linear model was tested to identify demographic predictors of faculty-student mentoring. The following variables were tested: Student/faculty age, student/faculty ethnicity, faculty rank, student's geographic proximity to campus, faculty rank, faculty research funding, and presence of young children for both faculty and students. Interactions between these variables were also tested.

2) What strengths and weaknesses do doctoral nursing students identify in their relationships with their major professors?

The Major Professor Mentoring Scale contains 12 reverse coded items which describe negative facets of a faculty-student relationship. Means for these items

were reported. Additionally, a summary of the responses to open ended items 31 and 32 was developed.

3) What are the principal factors of the relationship between doctoral nursing students and their major professors?

   A principal components analysis was performed to identify the major factors present in the structure of this relationship.

4) Does the psychosocial function predominate in nurse mentor relationships?

   The variance accounted for by the psychosocial mentoring factor was compared with the variance explained by other factors.

5) What is the nature of collaboration between nursing doctoral students and their major professors?

   The Major Professor Mentoring Scale contained 3 items specifically related to student-faculty collaboration. Means for these items were reported.

CHAPTER 4

PRESENTATION OF THE FINDINGS

A non-experimental descriptive study was conducted to describe the experience of mentoring between doctoral nursing candidates and their major professors. In this chapter descriptive characteristics of the participants are reported, the survey results are presented, and the findings are summarized.

Cover letters were sent to 45 university registrars requesting names and addresses of doctoral nursing students/candidates. One registrar indicated that her university's doctoral program, which had begun in 1997, had no students at candidacy status yet. Two programs were eliminated following a request for a significant fee to provide the requested information. Four programs were unable to release student data due to university policy. Despite a follow-up letter to registrars, 16 programs either did not reply or refused to send the information requested. Twenty-two universities complied with the request, supplying over 550 student names. The convenience sample of 22 participating universities represented 19 states covering a wide geographic range. The sample represented programs at five different levels of the Carnegie Classification System (Doctoral granting I, II, Research I and II and Medical).

While some registrars were able to limit their lists to names and addresses of doctoral students who had reached candidacy status, others were not able to impose such limits and sent the names of all doctoral students in the nursing program. The screening

survey was sent to 573 students to establish candidacy status and to gauge interest in participating in the research. Twenty-three screening surveys were returned by the post office with forwarding addresses unknown. Four hundred-twenty-eight screening surveys were returned (78%) with all participants indicating interest in participating in the study. Of those who returned the screening survey, 269 students met the inclusion criteria for the study. All excluded students were still completing coursework. Two-hundred-sixty-nine students were sent the survey package with 232 returned (86%). Two surveys were incomplete and were eliminated from the analysis. The return rates from each school are summarized on tables 1 and 2.

Table 1

Screening Survey Return Rate

University Name	Carnegie Class*	Screening surveys sent	Screening surveys received	Screening survey Return rate
Georgia State University	D1	15	10	67%
Indiana University	R1	31	23	74%
Medical College of GA	Med	21	16	76%
Ohio State University	R1	10	8	80%
Rutgers University	R1	37	28	76%
Texas Woman's University	D1	82	70	85%
University of Arkansas	R2	8	8	100%

(table continues)

University Name	Carnegie Class*	Screening surveys sent	Screening surveys received	Screening survey Return rate
University of CA, San Francisco.	R1	8	6	75%
University of Colorado	R1	24	18	75%
University of Florida	R1	19	17	89%
University of Kentucky	R1	29	26	90%
University of Maryland	R1	33	26	79%
University of MA, Amherst	R1	6	5	83%
University of Nebraska	R1	22	15	68%
University of N. Carolina	R1	32	24	75%
University of Pittsburgh	R1	11	11	100%
University of So. Carolina	R2	26	18	69%
University of TX, Health Science Center San Antonio	Med	37	25	68%
University of Virginia	R1	28	22	79%
University of WI, Madison	R1	9	9	100%
University of WI, Milwaukee	R2	36	28	78%
University of Washington	R1	23	15	65%
TOTALS		550	428	78%

Carnegie Classifications obtained from: The Chronicle of Higher Education Almanac (August 23, 1998), p. 42.

Table 2

Mentoring Survey Return Rate

	Candidates mailed a survey	Post card Received	Survey Return Rate
Georgia State University	10	10	100%
Indiana University	18	15	83%
Medical College of Georgia	11	11	100%
Ohio State University	7	6	86%
Rutgers University	11	10	91%
Texas Woman's University	37	32	86%
University of Arkansas*	0	0	0
University of CA, San Francisco	6	6	100%
University of Colorado	14	13	93%
University of Florida	16	12	75%
University of Kentucky	16	15	94%
University of Maryland	25	20	80%
University of Massachusetts, Amherst	5	5	100%
University of Nebraska	4	2	50%
University of North Carolina	10	8	80%
University of Pittsburgh	11	11	100%
University of South Carolina	13	9	69%

(table continues)

	Candidates mailed a survey	Post card Received	Survey Return Rate
University of Texas, Health Science Center at San Antonio	12	11	92%
University of Virginia	10	10	100%
University of Wisconsin, Madison	9	8	89%
University of Wisconsin, Milwaukee	10	8	80%
University of Washington	14	10	71%
TOTALS	269	232	86%

*This program was established in 1997 and at the time of the study, had no students at candidacy.

Description of Participants

Two-hundred-thirty doctoral nursing candidates participated in the study. The age of the participants ranged from 30 to 57 years with a mean age of 44.4 years (SD 6.13). Females constituted 93.5% of the sample with 6.1% being males. Ethnic background was predominantly Caucasian (87.4%), with small percentages of students describing themselves as Black/African American (3.5%), Asian/Asian American (5.7%) and Hispanic (1.4%). The majority of students were married (68.7%) with dependent children (52.2%). The vast majority of students were pursuing PhD degrees (92.2%) with 7.8% pursuing DNS degrees. Most were working full time while pursuing the degree (63.5%). Table 3 presents a summary of the demographic characteristics of the participants.

Table 3

Demographic Characteristics of Doctoral Student Participants

Variable	Frequency	Percent
Gender		
Female	215	93.5%
Male	14	6.1%
Missing data	1	0.4%
Race/Ethnicity		
Caucasian	201	87.4%
Black/African American	8	3.5%
Hispanic/Hispanic American	3	1.3%
Asian/Asian American	13	5.7%
Other	5	2.1%
Marital Status		
Single	32	13.9%
Dating seriously/living with someone	11	4.8%
Married	158	68.7%
Separated/divorced	26	11.3%
Widowed	3	1.3%

(table continues)

Variable	Frequency	Percent
Number of dependent children (under 21)		
None	110	47.8%
One	52	22.6%
Two	43	18.7%
Three	17	7.4%
Four	7	3.0%
Five	1	0.4%
Degree		
PhD	212	92.2%
DNS/DNSc	18	7.8%
Highest degree requirement completed		
Completed qualifying exams	6	2.6%
Writing the dissertation proposal	82	35.7%
Defended the dissertation proposal	124	53.9%
Defended the dissertation	18	7.8%
Employment Status		
Employed full time	146	63.5%
Employed part time	66	28.7%
Unemployed	17	7.4%

(table continues)

Variable	Frequency	Percent
Funding for doctoral education		
Student paying all costs	123	53.5%
Fellowship covering all expenses	15	6.5%
Other	92	40.0%
I chose this program primarily for its:		
Location	108	47.0%
Reputation	46	20.0%
Course schedule fit my personal life	35	15.2%
Other	26	11.3%
Missing data	15	6.5%

Students traveled an average of 166.3 miles (SD 433) each way to campus but it was noted that 11 outliers traveled more than 750 miles each way. When these 11 outliers were removed the mean dropped to 85.2 miles (SD 85.2). The mean length of time the students had known their committee chairs (in any capacity) was 58.2 months. The mean number of months the faculty members had been formally appointed to the committee chair was 27.7 months. These data are summarized in Tables 4 and 5.

Table 4

Geographic Distance of Doctoral Students from Campus

Variable	n	M	SD	Min	Max
Miles traveled one way to campus	230	166.3	433.10	0	4000
Miles traveled one way to campus (excludes students traveling >750 miles)	219	85.2	114.78	0	700

Table 5

Duration of Relationship (in months)

Variable	n	M	SD	Min	Max
Number of months you have known Committee Chair	230	58.2	32.10	5	180
Number of months he/she has been your been Committee Chair	229	27.70	19.83	1	96

Frequency of meetings between students and their committee chairs varied a great deal. Twenty-eight percent of the students reported meeting one to two times per month and 43% reporting meeting 6-12 times per year. A large number of students (27.4%) selected "other" in response to this question. Write-in responses indicated frequent use of electronic mail, telephone conferencing and other high-technology meeting alternatives. While the majority of student-faculty meetings took place on campus in the committee chair's office, other locations were occasionally used including restaurants, student's homes, and the committee chair's home.

The majority of students were working with committee chairs between the ages of 46-55 (58.7%) and 56-69 (24.3%). Ninety-four percent of the students reported having female chairs while 6% reported having male chairs. Thirteen of the 14 male students were working with female chairs (93%) and thirteen of the 225 female students were working with male chairs (6%).

The majority of chairs were Caucasian (92.6%) with 6.5% reported to be Black/African American. Most of the chairs were married (66.5%) with no dependent children at home (61.7%). The chairs were mostly associate (30.9%) and full professors (48.3%) with 78.7% having tenure. Sixty-nine percent of the students reported working with chairs who had one or more funded research projects while 18.3% did not know. Thirty-seven percent of the students reported changing committee chairs at least once since beginning their doctoral studies. Table 6 presents a summary of the demographic characteristics of the committee chairs as reported by the doctoral students in the study. The status of the committee chairs with respect to rank, tenure and current funded research is summarized in table 7.

Table 6

Demographic Characteristics of the Committee Chairs (as reported by the research subjects)

Variable	Frequency	Percent
Gender		
Female	202	94%
Male	13	6%
Age		
25-25	1	0.5%
36-45	18	8.4%
46-55	131	60.9%
56-69	48	22.3%
70 or above	3	1.4%
Don't know	14	6.5%
Race/Ethnicity		
Caucasian	198	92.1%
Black/African American	15	7.0%
Hispanic/Hispanic American	0	0%
Asian/Asian American	0	0%
Other	2	0.9%

Variable	Frequency	Percent
Marital Status		
Single	22	10.2%
Dating someone seriously/ Living with someone	16	7.4%
Married	140	65.1%
Separated/divorced	12	5.6%
Widowed	6	2.8%
Don't know	17	7.9%
Missing data	2	0.9%
Dependent children (under age 21)		
Yes	65	30.2%
No	131	60.9%
Don't know	19	8.8%

Table 7

Rank, Tenure and Research Status of Committee Chairs (as reported by the research subjects)

Variable	Frequency	Percent
Academic Rank		
Assistant Professor	22	10.2%
Associate Professor	66	30.7%
Full Professor	104	48.4%
Non-tenure track	1	0.5%
Don't know	12	5.6%
Other	3	1.4%
Missing data	7	3.3%
Tenure		
Yes	168	78.1%
No	15	7.0%
Don't know	30	14%
Missing data	2	0.9%
Chair has funded research project(s)		
Yes	144	67%
No	29	13.5%
Don't know	42	19.5%

Principal Components Analysis

The principal axis method was used for the initial extraction of components followed by an orthogonal (varimax) rotation. Using the eigenvalue-one criterion (Hatcher, 1994) nine factors were retained in the original model. After noting that factors five through nine contributed only minimally to the variance, the scree plot (Figure 1) was examined. The scree test suggested that there was a natural break in eigenvalues after the first five components, thus a five-factor solution was run with only one item loading on the fifth factor. A four-factor solution loaded at least three items on each factor and the items loading on each factor shared a conceptual meaning. While the two- factor solution is more commonly seen in the mentoring literature, the four-factor solution appeared to add depth to the model. A four-factor solution was accepted, accounting for 52.98% of the total variance. Twelve items were eliminated because they either loaded on more than one factor or did not load on any factor. Survey items loading on each of the four factors are presented in Tables 8 through 11. Table 12 summarizes the items that were eliminated.

Figure 1

Scree Plot of Eigenvalues

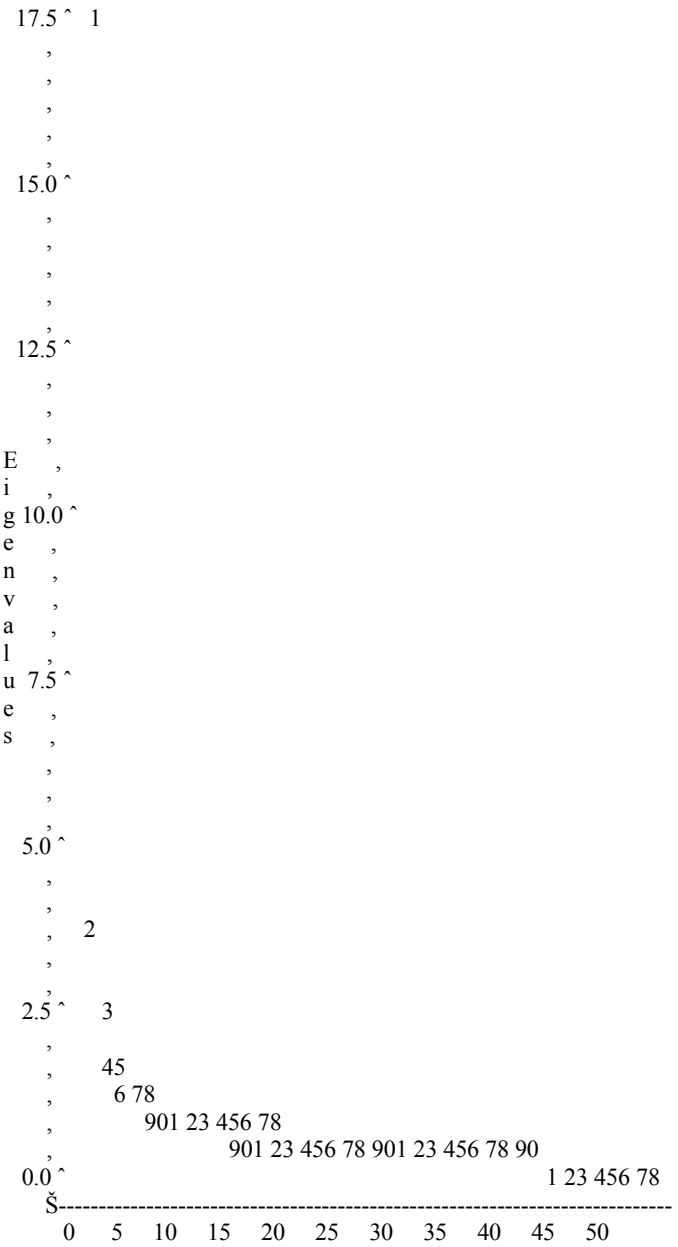

Table 8

Means, Standard Deviations, Rotated Factor Loadings and Communalities (h^2) for the 18 Items Loading on Factor 1

				Factor Loadings			
Item	M	SD	h^2	1	2	3	4
When my committee chair and I disagree about something related to my degree research, we usually end up doing it his/her way. (R)	3.69	1.66	.27	.42	.15	.26	-.03
My committee chair treats me like a colleague	5.33	1.74	.70	.72	.32	.16	.21
My committee chair is condescending to me (R)	2.06	1.63	.66	.74	-.03	.12	.31
My committee chair is understanding when I can't meet time goals that we have set	5.45	1.40	.39	.59	.21	-.01	.04
My committee chair has told me that he/she thinks I will be a competent professional	5.54	1.68	.51	.58	.30	.21	.17
I feel exploited by my committee chair (R)	1.81	1.43	.57	.66	-.12	.26	.23
I think my committee chair believes in my professional abilities	6.09	1.18	.73	.74	.14	.08	.40
My committee chair is discouraging when I have problems with my research (R)	2.13	1.38	.68	.66	.14	.33	.33
My committee chair is a warm person	5.98	1.53	.52	.67	.07	.20	.17

(table continues)

Item	M	SD	h^2	Factor Loadings 1	2	3	4
My committee chair is impatient with me when I don't understand something (R)	1.92	1.39	.48	.66	.01	.08	.20
When I am frustrated with my research, I talk to my committee chair about my negative feelings	4.83	1.89	.58	.64	.25	.32	.02
I am sure that my committee chair holds things I tell him/her confidentially in confidence	5.67	1.51	.56	.67	.12	.30	.13
I feel that I can talk to my committee chair about anything	4.30	2.11	.63	.66	.40	.18	.03
I think that my committee chair would talk negatively about me behind my back (R)	1.91	1.45	.61	.66	.15	.13	.21
My committee chair has a good sense of humor	5.63	1.27	.52	.66	.15	.13	.21
My committee chair is non-judgmental about my personal decisions	5.37	1.47	.54	.70	.13	.08	.16
My committee chair is uninterested in my personal life (R)	2.93	1.60	.51	.60	.38	.10	.02
I am intimidated by my committee chair (R)	2.20	1.54	.47	.67	-.02	.09	-.06

(R) indicates reverse coded item

Table 9

Means, Standard Deviations, Rotated Factor Loadings and Communalities (h^2) for the 8 Items Loading on Factor 2

Item	M	SD	h^2	Factor Loadings 1	2	3	4
My committee chair advised me about what classes I should take	4.70	1.89	.35	.14	.46	.33	.12
My committee chair introduces me to important people in my research area	4.14	1.97	.57	.18	.65	.26	.22
My committee chair encourages me to submit articles for publication	5.11	1.88	.59	27	58	38	20
My committee chair encourages me to present my research at professional meetings	5.16	1.80	.60	.13	.66	.37	.12
My committee chair gives me advice about professional etiquette	4.37	1.73	.45	.23	.54	.32	.02
My committee chair asks me to get involved in his/her research projects	3.41	2.10	.54	.00	.74	-.11	.12
My committee chair encourages me to go to professional meetings that he/she is attending	3.73	2.04	.52	.02	.67	.17	.20
My committee chair asks me to co-author articles or chapters that he/she has been invited to write	2.97	1.91	.53	.11	.71	.03	.08

Table 10

Means, Standard Deviations, Rotated Factor Loadings and Communalities (h^2) for the 6 Items Loading on Factor 3

				Factor Loadings			
Item	M	SD	h^2	1	2	3	4
My committee chair helps me to break my research project into smaller, more manageable goals	5.26	1.69	.62	.20	.15	.71	.21
My committee chair gives me useful feedback on my drafts of my dissertation	5.84	1.39	.63	.22	.12	.68	.33
My committee chair is a poor editor of my work on my dissertation (R)	1.97	1.34	.50	.14	.06	.69	.08
When my committee chair and I schedule meetings to discuss my degree research project, he/she is prepared to discuss the work with me	5.91	1.41	.50	.32	.12	.49	.38
My committee chair makes sure that I am aware of university deadlines for research completion	4.92	1.82	.53	.37	.30	.55	-.02
My committee chair gives me little direction in my research (R)	2.84	1.93	.53	.28	.24	.60	.18

(R) indicates reverse coded item

Table 11

Means, Standard Deviations, Rotated Factor Loadings and Communalities (h^2) for the 4 Items Loading on Factor 4

				Factor Loadings			
Item	M	SD	h^2	1	2	3	4
My committee chair is knowledgeable about research design	5.95	1.39	.50	.02	.15	.27	.63
My committee chair is intelligent	6.63	0.71	.57	.17	.11	.24	.69
I respect my committee chair's professional abilities	6.43	0.87	.64	.28	.15	.25	.69
My committee chair works hard	6.37	1.05	.51	.21	.28	.20	.59

Table 12

Items Eliminated Due to Low or Similar Factor Loadings

				Factor Loadings			
Item	M	SD	h^2	1	2	3	4
My committee chair and I have regularly scheduled meetings to discuss my degree progress	4.39	2.05	.30	.18	.33	.37	.13
My committee chair is uninterested in the topic on my dissertation (R)	1.99	1.48	.26	.34	.13	.26	.25
My committee chair suggests better ways of doing my dissertation	5.35	1.49	.55	.16	.18	.56	.43
My committee chair is knowledgeable about the area I am researching for my dissertation	5.16	1.74	.46	.12	.42	-.06	.52

(table continues)

Item	M	SD	h^2	Factor Loadings 1	2	3	4
My committee chair has impossible ambitions for what I can do for my dissertation research (R)	2.36	1.58	.27	.31	-.07	.15	.38
My committee chair tells me about potential sources of funding	4.36	1.96	.54	.12	.50	.52	.04
My committee chair teaches me how to critically evaluate research	4.66	1.81	.54	.12	.46	.49	.28
My committee chair respects me	6.20	1.21	.81	.75	.20	.14	.44
I talk to my committee chair about my personal life	4.22	2.03	.42	.45	.44	.17	-.03
My committee chair is fair	6.16	1.16	.74	.66	.08	.28	.47
My committee chair treats me in a nonsexist manner	6.05	1.49	.22	.26	.12	-.03	.37
My committee chair has taught me a lot about what it means to be a member of my profession	5.18	1.81	.69	.36	.44	.42	.43

(R) : indicates reverse coded item

Schroeder (1994), in developing the Major Professor Mentoring Scale, suggested that scores could be derived by calculating an average score for the total scale and for the subscales. Using this approach, a total scale score was calculated by averaging across the 36 items loading on the subscales. It must be noted that this "factor-based score" is different from a true factor score. Factor scores allow researchers to assign a score to each subject to indicate "where that subject stands on the retained components" (Hatcher, 1994, p. 31). A factor score is a linear composite of the optimally-weighted

variables and is useful in regression analysis. A factor-based score, as discussed by Schroeder, is useful for comparing the performance of the group to the original likert scale options. A factor-based average of 5.31 (SD = .95) was obtained on the 36 items comprising the total scale.

Question 1

Question 1 asked: Do doctoral nursing students perceive themselves as having a mentor-protégé relationship with their major professors?

The factor-based mean for the total mentoring survey was 5.31 (SD .95) suggesting that the group as a whole varies from a fairly neutral position with respect to mentoring (1 SD below the mean) to a strongly positive experience (1 SD above the mean). In response to the question, "If you were asked to identify a faculty member who has mentored you, would this be your committee chair?", 68% of the students responded "yes" while 32% responded "no". This largely positive response appears to be consistent with the mean for the total mentoring survey.

Question 2

Question 2 asked: What strengths and weaknesses do doctoral nursing students identify in their relationships with their major professors?

The Major Professor Mentoring Scale contained 12 reverse-coded items which describe negative facets of a faculty-student relationship. As a whole, the subjects tended to disagree with these negative comments suggesting that the relationship had more positive than negative facets. The most negatively reported item ("When my committee

chair and I disagree about something related to my degree research, we usually end up doing it his/her way") probably reflects the hierarchical nature of contemporary student-faculty relationships. Table 13 summarizes the responses to these items.

Table 13

Student Responses to Reverse Coded Items

Item	M	SD
My committee chair is uninterested in the topic on my dissertation	1.99	1.48
My committee chair is a poor editor of my work on my dissertation	1.97	1.34
My committee chair has impossible ambitions for what I can do for my dissertation research	2.36	1.58
My committee chair is condescending to me	2.06	1.63
My committee chair gives me little direction in my research	2.84	1.93
My committee chair is impatient with me when I don't understand something	1.92	1.39
When my committee chair and I disagree about something related to my degree research, we usually end up doing it his/her way	3.69	1.66
I feel exploited by my committee chair	1.79	1.42
My committee chair is discouraging when I have problems with my research	2.13	1.38
I think that my committee chair would talk negatively about me behind my back	1.91	1.45
My committee chair is uninterested in my personal life	2.93	1.60
I am intimidated by my committee chair	2.20	1.54

Two open-ended questions at the end of the demographic questionnaire asked subjects to describe both the benefits and negative aspects of their relationship with their committee chairs. Few subjects left these questions blank and many students wrote extensive comments. There were many similarities in the students' responses and several themes emerged as dominant. In the psychosocial realm, 75 of the students (33%) reported getting support, respect, caring, understanding and encouragement from their chairs. Twenty-nine students (13%) cited the importance of the chair's confidence in their abilities (e.g. “She made me feel that I could do anything”, “She believed in me as a scholar and more importantly, as a person”, and “She has allowed me room to grow”.) Collaboration was cited as a benefit by 18 students (8%) who reported that their chair helped them access publishing and grant opportunities as well as connections to other scholars. Direct support for their dissertation research was cited by 39 students (17%) who relied heavily on their chair's knowledge of research design, methodology and statistics. Timely, straightforward feedback was valued by sixteen subjects (7%) while twenty students (9%) felt the chair had been vital in moving the research process along. Eleven students (5%) profited from their chair's direct knowledge of the subject they were researching and three students (1.3%) specifically mentioned that their chairs had advocated for them with committee members and the department. Twenty-two students (10%) identified their chairs as role models of successful scholarship with sixteen stating that their chair's national reputation as a scholar was beneficial to them (e.g. “A letter of reference from her will carry a lot of influence”, and “I have the advantage of knowing my work is critiqued by 'one of the best'“).

Among the negative aspects of the relationship, students reported many different disappointments. Two concerns emerged as dominant with 32 students (14%) specifically citing geographic distance from the campus as an impediment to progress and 32 students specifically citing the chair's busy schedule as an impediment. ("She's so busy, I don't dare ever call her for time unless I'm desperate", and "When I call for appointments I usually have to wait 3-4 weeks to be scheduled"). Twenty-three students (10%) identified their chairs experiential background as an impediment indicating that the chair had no experience with their topic or clinical specialty (e.g. "I'm doing psych research and her background is oncology"). Twenty students said their chairs were disrespectful of their needs, indicating that the chair did not return calls and drafts in a timely fashion, was generally disorganized or was rigid and did not tolerate questions or disagreement (e.g. "She takes up to 6 weeks to review a draft of my work and has added months to the dissertation process and "My chair has been doing this for a long time and she is not open to new ideas"). Seven students lamented that their chairs did not advocate for them with committee members, while another seven stated that their chairs were not experienced researchers, chairs and leaders (e.g. "She is a new professor and I am her first doctoral student…She lacks knowledge of the system"). Seven students complained of unrealistic timelines and expectations and the chair's general inability to help the student decide limits on activities. As one student stated "I read and I read and I write and I write and it's never enough. Yet she is unable to help me answer the question, 'When is enough enough?".

In the psychosocial realm, 12 students (5%) lamented the lack of a personal relationship with their chairs, ("I'd like to have a work relationship as well as a personal relationship, while my chair is only concerned about work" and "We don't have a close personal relationship, no casual contact. Although this isn't expected it would be nice".) Additionally five students (2%) were disappointed that their chairs did not initiate contact and that they were responsible for initiating any and all meetings. One student who was disappointed with several facets of her relationship eloquently discussed her inability to be direct about some of her concerns stating, "I would like to be more direct with her but I do not feel safe doing so at this time". This student indicated that one of the powerful lessons she had learned in her relationship with her chair was how to avoid confrontation.

Question 3

Question 3 asked: What are the principal components of the relationship between doctoral nursing students and their major professors?

The four principal components of the relationship emerging from the data, in the order of variance explained by the model were: 1) psychosocial: This component included such items as "My committee chair treats me like a colleague", "My committee chair believes in my professional abilities", "My committee chair has told me that he/she thinks I will be a competent professional". 2) research collaboration: This component included such items as "My committee chair asks me to co-author articles/chapters that he/she has been invited to write", My committee chair asks me to get involved in his/her research projects", and "My committee chair encourages me to submit articles for

publication". 3) dissertation support: This component included such items as "My committee chair helps me break down my research project into smaller, more manageable goals", "My committee chair gives me useful feedback on drafts of my dissertation", and "When my committee chair and I schedule meetings to discuss my research, he/she is prepared to discuss the work with me". 4) faculty role modeling: This component included such items as "My committee chair is knowledgeable about research design", "My committee chair is intelligent", "I respect my committee chairs professional abilities". Together, the four factors accounted for 53% of the variance in the model. Table 14 lists the variance explained by each factor.

Table 14

Proportion of Variance Accounted for by Each Factor

Factor	Factor Label	Eigenvalue	Variance Explained	Cumulative Percent
1	Psychosocial Support	17.50	36%	36%
2	Research Collaboration	3.86	8%	44%
3	Dissertation Support	2.32	5%	49%
4	Faculty Role Modeling	1.76	4%	53%

Internal consistency reliability coefficients (Cronbach's alpha) were computed for the 36 items loading on the total scale and each of the four subscales. The total scale yielded a coefficient of 0.95. The Psychosocial Support Subscale yielded a coefficient of 0.94. The Research Collaboration Subscale yielded a coefficient of 0.86. The

Dissertation Support Subscale yielded a coefficient of 0.83 and the Faculty Role Modeling Subscale yielded a coefficient of 0.77. A Cronbach's alpha computed on the 48 items of the original Major Professor Mentoring Scale yielded a coefficient of 0.96.

Question 4

Question 4 asked: Does the psychosocial function predominate in nurse-mentor relationships?

Based on the item analysis, five scores were derived from responses to the Mentoring Survey: 1) Total Scale score, 2) Psychosocial Support Subscale score, 3) Research Collaboration Subscale score, 4) Dissertation Support Subscale score, and a 5) Faculty Role Modeling Subscale score. Scores could range from one to seven on each of the scales, with higher scores indicating more positive responses. To obtain the subscale scores, averages of items loading on the factors were computed.

Within the four-factor solution the psychosocial factor was a strongly positive influence for students although it was not the only one. The psychosocial support factor contributed most to the variance of the model and the factor-based score mean of 5.53 (SD 1.1) suggests that students felt positively about the psychosocial support they received from their committee chairs. Students also felt positively about their faculty as role models (mean 6.36, SD .80) although this factor contributed least to the variance of the model. Dissertation support ranked high as well with a mean of 5.52, contributing third to the variance of the model. Research collaboration was the second highest contributor to variance in the model, but it’s mean was lower than the other three factors.

The factor-based score mean of 4.20 suggests that students are fairly neutral in their appraisal of this facet of the relationship. Factor-based averages for the total scale and 4 subscales are presented in Table 15.

Table 15

Factor-Based Means

Factor	Factor-based mean	SD	Min	Max
Psychosocial Support	5.53	1.10	1.67	7.0
Research Collaboration	4.20	1.36	1.0	7.0
Direct assistance with Dissertation	5.52	1.19	1.33	5.83
Faculty Role Modeling	6.36	.80	2.0	7.0
Total	5.18	0.92	1.89	6.62

Several predictor variables were tested in a general linear model to identify predictors for the four factors of the mentoring relationship. It had been assumed for example, that geographic distance from campus might predict the quality of psychosocial relationships. In a model testing geographic distance from campus, gender, race, marital status, number of dependent children at home, faculty rank, tenure and funded research, none of the predictor variables were significant in predicting the four factor scores. Thus, there were no meaningful predictors identified.

Question 5

Question 5 asked: What is the nature of collaboration between nursing doctoral students and their major professors?

Three survey items asked questions about scholarly collaboration between students and their committee chairs. Table 16 is a summary of the responses to those items. The means on these three survey items are low suggesting that few students were actively collaborating with their chairs in the areas of writing, research and attending professional meetings. Factor 3, research collaboration, (which loaded the three items in table 16 and five others items) had the lowest factor-based mean. This too suggests that effective scholarly collaboration is at best a neutral facet of the relationship.

Table 16

Frequency distribution of three scale item related to faculty-student scholarly collaboration

Survey Item	M	SD
20. My committee chair asks me to get involved in his/her research projects	3.43	2.10
22. My committee chair encourages me to go to professional meetings that he/she is attending	3.71	2.03
23. My committee chair asks me to co-author articles or chapters that he/she has been invited to write	2.94	1.89

Summary

Analysis of the data in this study suggested that doctoral nursing students do feel mentored by their committee chairs. The relationship appears to be based on four factors, the most powerful of which is psychosocial support. Dissertation support and role modeling also make up positive facets of the relationship while scholarly collaboration emerged as the weakest component of the relationship. The demographic variables tested did not meaningfully predict factor scores for these subjects.

CHAPTER 5

SUMMARY OF FINDINGS, DISCUSSION, CONCLUSION AND RECOMMENDATIONS

Summary of Findings

The results of this study suggest that a majority of nursing doctoral students perceived themselves as being mentored by their doctoral committee chairs. Mentoring has been embraced as an important means by which nursing intends to achieve its aims of developing the next generation of caring scholars. This factor analysis provides insight into the underpinnings of this powerful relationship. The relationship was composed of four parts the most important of which was psychosocial support. This caring relationship was also characterized by dissertation support, role modeling and to a weaker extent, collaboration. While the conclusions are tentative due to the non-random sampling techniques used, they nonetheless provide information which may be useful in program planning and future research.

Discussion

The relationship between doctoral students and their committee chairs is intense and long-term. The mean length of time students reported working with their advisors in the position of committee chair was 28 months. Most of the students had met their chairs during the coursework phase of their doctoral programs, as evidenced by the mean

length of time students reported knowing their chair (58 months). This longevity is consistent with the data reported by Levinson et al. (1978) who described mentoring as a relationship lasting 3-10 years.

As a profession which values caring, nursing places priority on the relationships between individuals. It is not surprising, then, to discover that within nursing doctoral programs the mentoring relationship between students and their committee chairs is heavily based upon a combination of psychosocial support and dissertation support. This is an important outcome considering the large number of anecdotal reports which describe doctoral study in many disciplines as a lonely and frightening process, a process which may cause as many as 50% to withdraw before completion and yet others to commit suicide (Temple, 1998).

The factor which earned the highest overall mean rating, but contributed least to the model was professional role modeling. This small but positive facet of the relationship is operationalized as students see their chairs working hard and demonstrating knowledge of research design. The opportunity for doctoral students to see their faculty working hard in the role of scholar foreshadows what the future holds for every successful graduate. It should be a source of faculty pride that nursing doctoral students hold their chairs in such high esteem. The fourth factor, however, critical to the development of students as research scholars, had the lowest mean on the survey and suggests that little scholarly collaboration is occurring within the context of the relationship.

Schroeder (1994) administered the Major Professor Mentoring Scale to a large

sample of graduate students at three universities in the Midwest. Despite a 45% response rate, she obtained a large sample (N=417). Eighty percent of these students were pursuing doctoral degrees and they represented 20 departments and 8 disciplines (including biology, chemistry, physics, psychology, sociology, geology, biochemistry and anthropology). Schroeder's respondents had a mean age of 28 years, consistent with the typical mean age of doctoral students in the traditional sciences. In performing a factor analysis on the data, Schroeder proposed a two-factor solution. Her psychosocial factor was quite similar to the one in the present study and her professional factor loaded many of the items loading on three separate factors in the present study. Schroeder's subjects had a mean mentoring score on the total instrument of 5.16 as compared to 5.30 in the present study. In an effort to further compare the outcomes of nursing doctoral students with Schroeder's sample of students in the traditional and social sciences, the data was re-analyzed using Schroeder's factor loadings. The comparison is presented in Table 17.

Table 17

Comparison of Mean Scores

Scale	Schroeder, 1994		Kirkley, 1999	
Total	5.17	(SD 0.97)	5.30	(SD 0.94)
Psychosocial	5.08	(SD 0.92)	5.53	(SD 1.10)
Professional	5.25	(SD 0.84)	5.08	(SD 1.02)

It would appear that the overall experience of nursing doctoral students with respect to mentoring is similar to students in the traditional and social sciences. The

factor analysis, however, shows an interesting difference between the two groups. Schroeder found the professional factor to carry a higher mean than the psychosocial factor. The priority of the professional domain over the psychosocial domain is consistent with anecdotal descriptions of the frightening and isolating process of doctoral education (Temple, 1998). This finding was not replicated among the nursing doctoral students in this study. Among nursing students, the psychosocial facet of the relationship was the stronger facet of the relationship. This finding suggests that nursing doctoral programs may be providing more support and nurturing than programs in the traditional and social sciences.

While psychosocial support was rated highly by the nursing doctoral students in this study, the standard deviation suggests that there were students whose psychosocial needs were not well met. One student whose needs were not being met described her inability to confront her chair with her feelings of frustration:

> Scheduled, private meeting times have almost always started late and have always been interrupted by phone calls and others stopping by her office, disrupting my train of thought and making my work seem disposable or unimportant… I have tried to address some of these issues directly but have always felt uncomfortable and vulnerable…One thing I have learned with her is how NOT to participate in confrontation. I would like to be more direct with her, but do not feel safe in doing so at this time. (Subject # 35)

Interestingly, despite this student's remarks, she answered "yes" to the question , "If

asked to identify a faculty member who has mentored you would this be your committee chair?". This student's experience provides a vivid illustration of Heinrich's (1995) description of "silent betrayal" in which students remain silent in difficult relationships with their advisors. In Heinrich's study, women doctoral students were unable to confront their female advisors with feelings of disappointment and anger although they had no difficulty doing so with their male advisors.

Keller and Moglen (1987) have discussed the danger in women's socialization as cooperative and altruistic. While some feminist authors have heralded the ethic of caring as a distinctly feminine way of being and knowing (Gilligan, 1982), it may be this very socialization pattern that leads to women's discomfort with confrontation and anger. Women's efforts to maintain harmony at all costs are often coupled with an underlying assumption that competition and conflict can be avoided if one is "good enough". One of the tenets of the second wave of feminism, collectivity and sisterhood, flies in the face of the actual experience of women pursuing as lofty a goal as a doctoral education. Grants, scholarships, book contracts, opportunities to work with prestigious scholars all come with a competitive price tag. Women must be socialized to compete and to confront in order to succeed in the academic world as it exists today.

Keller and Moglan (1987) have suggested that women in academe are poorly prepared for competition and conflict. Women must be taught that it is not "anti-feminist" to confront the dilemma of power. Heinrich's (1995) finding that women doctoral students were more likely to confront male advisors than female advisors is supported by Keller and Mogelan's theoretical discussion about women's socialization to

avoid confrontation with other women. These contemporary issues advance the discussion first waged by Kanter (1977) who lamented women's inability to access women mentors. In a discipline such as nursing, where women mentors are plentiful, new questions may need to be raised regarding the unique strengths and stressors of female dyadic pairing.

Geographic distance is another interesting variable in the study. A large number of students indicated that they lived too far from their chair to initiate any kind of meaningful relationship. While a statistical analysis did not show geographic distance to be a predictor of the mentoring scale scores, the students did perceive it as an issue. While distance is an impediment to face-to-face meetings with faculty, it is also an impediment to access of university resources. Programs with large numbers of students in distant communities might consider using technology to create virtual reality student lounges via the internet. The use of technology to "close the gap" for distant students is an area worthy of further study.

It is unfortunate that the majority of nursing doctoral students must work while pursuing the doctoral degree. Meleis, et al. (1994) have argued that it is not ideal to pursue doctoral study on a part-time basis They argue that efforts to accommodate today's working doctoral student have relaxed scholarly standards. They suggest that nurse academics secure funding to allow fellowships for full time, residential study. In this study, less than seven percent of the participants had such a fellowship.

Thirty-two students in the study indicated that their chairs were quite busy and that they were afraid to call to ask for time. One student in the study described a method

used by her chair to conserve time spent meeting with individual students. Her chair met every two weeks in a group session with all her advisees. This was a standing meeting that all students attended. The students presented their progress to-date and asked questions of the chair and each other. The students gained skill at presenting scholarly facets of their study and the group assisted with mutual problem solving.

Few students are actively collaborating with their chairs in the areas of writing, research and professional meetings. There are several possible explanations for this finding. Nursing may be a discipline in which collaborative research is not valued or it may be that neither students nor faculty have time to engage in this activity. With a majority of doctoral students working full-time and engaging in family life, there may be no time for collaboration with faculty although there may be an earnest interest in doing so. Additionally, while only seven percent of students have a fellowship to fund their studies it may not be feasible to expect higher outcomes in the area of collaborative scholarship. An alternate explanation may be that students and chairs do not share a clinical/research agenda. In observing that 47% of the respondents chose their doctoral program solely based on location, students may be choosing programs even though there are no scholars there specializing in their area of interest. Several students expressed disappointment that their chairs had no experience in their clinical or research topic. Students may need to look for schools outside of their geographic area to find a researcher who is actively researching in their area of interest. While this mis-match may add to the paucity of collaborative research, it may be an inevitable outcome as long as

nursing doctoral students attempt to balance the needs of a full-time job and family alongside of their education.

It is interesting to note that 92% of the students knew their chair's marital/family status. This suggests that students get to know their chairs very personally during the course of their relationship. It may also suggest that nursing faculty are fairly open about their family status with students. Ironically, however 20% of the respondents did not know if their chair had any funded research. This finding suggests that personal sharing may be occurring at a higher rate than scholarly sharing. If research is a highly-valued component of doctoral education, one would suspect that faculty would be reporting the status of their research and grantsmanship, as easily as they would be discussing their relational status. Several questions arise in response to this finding including: Is this emphasis on personal sharing unique to women? Is it unique to nursing? Are nurses' personal lives more important than their scientific aims? Is this priority of the personal over the political distinctly feminist? Is it a strength to celebrate or a weakness to correct?

Conclusions

This study revealed the following conclusions based on the data obtained and analyzed:

1. Mentoring is occurring in the majority of relationships between doctoral nursing students and their committee chairs.

2. Students identify many strengths and weaknesses in the relationship with their committee chairs. The lengthy comments written by students suggest that this is a rich

area worthy of additional study. The nature of the data collected in this study illustrate an array of findings although it would be premature to specify concrete conclusions in this area based on this data.

3. The mentoring relationship is composed of four principal components including psychosocial support, dissertation support, scholarly collaboration and role modeling. Psychosocial support contributes the most variance to the model and students feel positively about this facet of the relationship. They also have positive feelings about dissertation support and role modeling although these factors contribute more modestly to the variance in the model. Demographic variables (including age, gender, race, marital status, geographic distance, faculty rank and tenure) do not predict mentoring scores.

4. The psychosocial factor predominates in the relationship between doctoral nursing students and their major professors.

5. Collaborative scholarship is the weakest area of the relationship between doctoral nursing students and their committee chairs.

Recommendations for Future Research and Practice

Based on the findings of this study the following recommendations are suggested:

1. Psychosocial support is a clearly a strength in nursing doctoral programs. Nursing doctoral faculty should be role models for other doctoral faculty in the realm of student support and caring. Future studies will be needed to determine if this facet of the relationship is unique to nursing as a caring profession or if it is unique to female dyads in general. Seeing this outcome as a simple consequence of female dyadic pairing would be congruent with feminist models which suggest that women gravitate toward a sense of

community and a caring ethic (e.g. Gilligan, 1982). Future researchers could look at doctoral students in other female dominated disciplines (e.g. social work or education) although caring may be an implicit construct in these professions as well.

2. Faculty and students are urged to clarify their expectations within the advising relationship. One student wrote a comment stating "This survey really helped me to see what I should be looking for in my relationship with my advisor. This process helped me to see that there are facets of our relationship that we should be working on". It would be helpful for faculty and students to clarify at the beginning of their relationship their mutual expectations with respect to psychosocial support, dissertation support, role modeling and collaborative scholarship so that each may know what to expect from the other. Periodically, the pair might also review the relationship to see that each member's needs are being met and to evaluate the need for change.

3. Students and doctoral program faculty should clarify their expectations for scholarly collaboration. If faculty determine this to be an expectation, then this outcome should be measured and there should be appropriate incentives in place to encourage it. Future research might seek to determine the aims of nursing students pursuing terminal degrees. If they are seeking the PhD to become productive research scholars, then collaboration would be an important goal. If instead they are seeking the terminal degree to obtain tenure, scholarly collaboration might be a more subordinate goal.

4. This survey instrument failed to screen for the use of electronic means of communication. Considering the emerging importance of technology in professional and personal relationships, future researchers should include an examination of the effects of

electronic mail and telephone conferencing on the development of student-faculty relationships.

5. As this study included a convenience sample of students from public university doctoral programs, an attempt should be made to study similar subjects in private university doctoral programs. Additionally, it would be useful to compare the results of this study to future studies looking at other disciplines with both cross-gender and women-dominated doctoral programs.

APPENDIX

SUPPLEMENTAL MATERIALS

Screening Survey Cover Letter

September 18, 1998

«FirstName» «LastName»
«Address»
«City», «State» «PostalCode»

Dear «Prefix» «LastName»,

I am working on my dissertation for a doctorate in higher education administration at the University of North Texas. I am also a nursing faculty member and I am interested in studying the mentoring relationship between nursing doctoral candidates and their committee chairs (also called major professors or advisors). I am seeking to survey a national sample of nursing doctoral students and am sending this brief screening survey to students at more than 30 different universities to identify those who might be subjects in my research.

Your name was listed in a directory of doctoral nursing students at «Univ__Name». I would like to request that you complete the enclosed brief questionnaire which will indicate if you qualify to be a participant in my study. It should take less than 5 minutes to complete and I have enclosed a postpaid return envelope for your convenience. Your participation is strictly voluntary and any information you provide will be held confidentially and used only for the purposes of this research study. Once I have identified the research subjects for my study, this screening survey will be destroyed. No individual students will be identified in the research.

I hope you will find the time in your busy schedule to complete this brief questionnaire. I look forward to your early response. Please feel free to contact me at xxx-xxx-xxxx or by e-mail if any questions arise. Thank you very much for your time.

Sincerely yours,

Debra Kirkley, MEd, RN
Doctoral Candidate
University of North Texas
Email address

This project has been reviewed and approved by the University of North Texas Committee for the Protection of Human Subjects (940) 565-3940.

Mentoring in Doctoral Nursing Education
Screening Survey

Instructions: Please answer each question by checking the appropriate box or filling in the blank, as indicated. Please return the survey in the enclosed post paid envelope as soon as possible.

1. Are you currently working on (or have you recently completed) a doctoral degree in nursing?

_____Yes _____No

2. Do you have a committee chair (also called a major professor or advisor)?

_____Yes _____No Other (explain)_____

3. Please place an "X" next to the comment that **best describes** your current progress toward completion of the doctoral degree

____I am still completing my doctoral coursework
____I have taken my comprehensive (qualifying) exams
____I am developing my research proposal
____I have defended my research proposal
____I have defended my dissertation
____I have received my doctoral degree (Date _____)

4. If you meet the criteria for inclusion, would you be willing to complete a brief, **anonymous,** post-paid, written survey which would be mailed to you shortly?

____Yes ____No

5. If you agreed in question #4 to participate in the study, please fill out your name and address so that I can send the survey to you.

Name _____

Mailing address_____

City_____ State_____ Zip Code _____

The follow up survey will include an opportunity for you to request a copy of the research results.

Thank you very much for your time.

Mentoring Survey Cover Letter

October 12, 1998

«FirstName» «LastName»
«Address»
«City», «State» «PostalCode»

Dear «Prefix» «LastName»,

I am working on my dissertation for a doctorate in higher education administration at the University of North Texas. Recently you expressed interest in participating in my research on mentoring relationships between doctoral nursing students and their committee chairs. I am surveying a national sample of doctoral students from more than 20 programs across the US and I am delighted that you are interested in participating.

The survey will take approximately 20 minutes of your time. The survey and instructions on how to complete it are included with this letter with the hopes that you will choose to participate. A stamped, addressed return envelope is included for your convenience. The surveys are anonymous. They are not coded so I will not be able to match any student with his/her responses. All data will be dealt with confidentially and no individual taking part in this study will be identified. Your participation is strictly voluntary.

To facilitate follow-up, I have enclosed a stamped post card for you to complete and return. By receiving your post card, I will know not to send you any follow-up reminder letters. You may also use the postcard to request a copy of the research results.

Hopefully you will find the time in your busy schedule to participate in this study. I look forward to your early response. Please feel free to contact me at xxx-xxx-xxxx or by e-mail if any questions arise. Thank you *very* much for your time.

Sincerely yours,

Debra Kirkley, MEd, RN
Assistant Clinical Professor
Texas Woman's University
Doctoral Candidate, University of North Texas
E-mail address:

This project has been reviewed and approved by the University of North Texas Committee for the Protection of Human Subjects (940) 565-3940

Committee Chair Mentoring Survey

You may write your answers directly on this survey. This is a confidential and anonymous survey. You will NOT be asked for your name or university affiliation. This research will include students from more than 20 doctoral programs across the U.S. ***Please*** be as honest as possible in your responses.

Mentoring Scale (Schroeder, 1994)

Directions: Following are some statements about your professional and personal relationships with your committee chair. Using the 1-7 scale below, please indicate your agreement with each item by circling the appropriate number on each line

	1	2	3	4	5	6	7
	Strongly Disagree	Disagree	Slightly Disagree	No Opinion	Slightly Agree	Agree	Strongly Agree
My committee chair and I have regularly scheduled meetings to discuss my degree progress	1	2	3	4	5	6	7
My committee chair is knowledgeable about research design	1	2	3	4	5	6	7
My committee chair helps me to break my research project into smaller, more manageable goals	1	2	3	4	5	6	7
My committee chair gives me useful feedback on my drafts of my dissertation	1	2	3	4	5	6	7
My committee chair is uninterested in the topic on my dissertation	1	2	3	4	5	6	7
My committee chair is a poor editor of my work on my dissertation	1	2	3	4	5	6	7
My committee chair suggests better ways of doing my dissertation	1	2	3	4	5	6	7
My committee chair is knowledgeable about the area I am researching for my dissertation	1	2	3	4	5	6	7

Schroeder, Debra. (1994). The development and validation of the major professor mentoring scale. Unpublished doctoral dissertation, Bowling Green State University.

	1	2	3	4	5	6	7
	Strongly Disagree	Disagree	Slightly Disagree	No Opinion	Slightly Agree	Agree	Strongly Agree
When my committee chair and I schedule meetings to discuss my degree research project, he/she is prepared to discuss the work with me	1	2	3	4	5	6	7
My committee chair is a warm person	1	2	3	4	5	6	7
My committee chair advised me about what classes I should take	1	2	3	4	5	6	7
My committee chair introduces me to important people in my research area	1	2	3	4	5	6	7
My committee chair has impossible ambitions for what I can do for my dissertation research	1	2	3	4	5	6	7
My committee chair tells me about potential sources of funding	1	2	3	4	5	6	7
My committee chair has told me that he/she thinks I will be a competent professional	1	2	3	4	5	6	7
My committee chair makes sure that I am aware of university deadlines for research completion	1	2	3	4	5	6	7
My committee chair encourages me to submit articles for publication	1	2	3	4	5	6	7
My committee chair encourages me to present my research at professional meetings	1	2	3	4	5	6	7
My committee chair gives me advice about professional etiquette	1	2	3	4	5	6	7
My committee chair asks me to get involved in his/her research projects	1	2	3	4	5	6	7
My committee chair teaches me how to critically evaluate research	1	2	3	4	5	6	7
My committee chair encourages me to go to professional meetings that he/she is attending	1	2	3	4	5	6	7
My committee chair asks me to co-author articles or chapters that he/she has been invited to write	1	2	3	4	5	6	7

	1	2	3	4	5	6	7
	Strongly Disagree	Disagree	Slightly Disagree	No Opinion	Slightly Agree	Agree	Strongly Agree
My committee chair treats me like a colleague	1	2	3	4	5	6	7
My committee chair is condescending to me	1	2	3	4	5	6	7
My committee chair is understanding when I can't meet time goals that we have set	1	2	3	4	5	6	7
My committee chair gives me little direction in my research	1	2	3	4	5	6	7
My committee chair is impatient with me when I don't understand something	1	2	3	4	5	6	7
When my committee chair and I disagree about something related to my degree research, we usually end up doing it his/her way.	1	2	3	4	5	6	7
My committee chair is intelligent	1	2	3	4	5	6	7
My committee chair respects me	1	2	3	4	5	6	7
I feel exploited by my committee chair	1	2	3	4	5	6	7
I think my committee chair believes in my professional abilities	1	2	3	4	5	6	7
My committee chair is discouraging when I have problems with my research	1	2	3	4	5	6	7
When I am frustrated with my research, I talk to my committee chair about my negative feelings	1	2	3	4	5	6	7
I am sure that my committee chair holds things I tell him/her confidentially in confidence	1	2	3	4	5	6	7
I talk to my committee chair about my personal life	1	2	3	4	5	6	7
I feel that I can talk to my committee chair about anything	1	2	3	4	5	6	7
I think that my committee chair would talk negatively about me behind my back	1	2	3	4	5	6	7
My committee chair has a good sense of humor	1	2	3	4	5	6	7

	1	2	3	4	5	6	7
	Strongly Disagree	Disagree	Slightly Disagree	No Opinion	Slightly Agree	Agree	Strongly Agree
My committee chair is nonjudgemental about my personal decisions	1	2	3	4	5	6	7
My committee chair is uninterested in my personal life	1	2	3	4	5	6	7
I respect my committee chair's professional abilities	1	2	3	4	5	6	7
My committee chair is fair	1	2	3	4	5	6	7
My committee chair treats me in a nonsexist manner	1	2	3	4	5	6	7
I am intimidated by my committee chair	1	2	3	4	5	6	7
My committee chair works hard	1	2	3	4	5	6	7
My committee chair has taught me a lot about what it means to be a member of my profession	1	2	3	4	5	6	7

DEMOGRAPHIC INFORMATION

Instructions: Please <u>circle</u> the response which best fits or fill in the blank.

1. What is your sex? a) Female b) Male

2. What is your age? _____ years

3. How do you describe yourself? (circle one or more than one if applicable)
   a) White/Caucasian
   b) Black /African American
   c) Hispanic/Hispanic American
   d) Native American
   e) Asian/Asian American
   f) Other describe)_____

4. What is your relational/marital status? (circle the most descriptive of you at the present time)
   a) Single
   b) Dating someone seriously or living with someone
   c) Married
   d) Separated/Divorced
   e) Widowed

5. What degree are you working on? a) PhD b) DNS/DNSc c) Other_____

6. Are you currently enrolled: a) Full time (9+ hours) b) Part time (less than 9 hours)

7a. Do you currently work? a) Full time b) Part time c) Don't work at all

7b. If you work, please indicate which specialty:
a) Nursing Education (rank_____)
b) Nursing Administration (position_____)
c) Clinical Practice (role_____)
d) Other (describe_____)

8a. How many dependent children do you have (under age 21) ? _____

8b. How old are your dependent children?
a) All are age 12 or younger b) All over age 13 c) Other_____

9. How far do you travel do get to the university campus (where your committee chair is located)? _____ miles

10. Which of the following requirements have you already completed?
(circle **all** that apply)
a) I have completed all the courses I have to take for my doctoral degree
b) I have completed the qualifying (or comprehensive) exams, written and/or oral
c) I am writing the proposal for my dissertation
d) I have defended the proposal for my dissertation
e) I have defended my dissertation

11. Do you have a committee chair (also called a major professor or advisor)?
a) Yes b) No

12. How are you funding your doctoral education? (check all that apply)
a) I am studying under a fellowship which pays my tuition as well as a living stipend (salary)
b) I am studying under a scholarship which pays all or part of my tuition expenses
c) I am funding my own studies (with or without family assistance)
d) Other (describe_____)

13. Please describe the methods used to pair you with your committee chair (circle **all** that apply)
    a) My committee chair was assigned to me
    b) I selected my committee chair
    c) My committee chair selected me
    d) I took a class and liked his/her style
    e) My committee chair's research area attracted me to him/her
    f) I selected my committee chair because of his/her strong reputation as a scholar
    g) I selected my committee chair because of his/her reputation of working well with doctoral students
    i) Other (describe)_____
    _____
    _____

14. I chose this doctoral program primarily: (circle one)
    a) because of it's location
    b) because of the reputation of the program
    c) because the program course offerings fit my work/personal schedule
    d) Other_____

16. Approximately how often do you meet with your committee chair to discuss your work/progress?
    a) More than once a week b) Once a week
    c) 2-3 times per month d) Once a month
    e) 5-6 times per year g) Other _____

17. How long does your typical meeting last?
    a) less than an hour b) one hour c) more than an hour

18. Please circle **all** of the locations used for meetings with your committee chair.
    a) On campus (your committee chair's office or department meeting room)
    b) Your home
    c) Your committee chair's home
    d) Restaurants/coffee shops
    e) Other (describe)_____

Please complete the following items as they apply to your committee chair

19. What is the approximate age of your committee chair?
    a) 25-35 b) 36-45 c) 46-55
    d) 56-69 e) 70 or above f) Don't know

20. What is the sex of your committee chair? a) Female b) Male

21. How would you describe your committee chair?

a) White or Caucasian
b) Black or African American
c) Hispanic or Hispanic American
d) Native American
e) Asian or Asian American
f) Other _____

22. What is the relational/marital status of your committee chair?

a) Single
b) Dating someone seriously or living with someone
c) Married
d) Separated/Divorced
e) Widowed
f) Don't know

23. Does your committee chair have dependent children (under age 21)?

a) Yes b) No c) Don't know

24. What is the academic rank of your committee chair?

a) Assistant Professor
b) Associate Professor
c) Full Professor
d) Non-tenure track
e) Don't know
f) Other (describe)_____

25. Is your committee chair tenured? a) Yes b) No c) Don't know

26. Does your committee chair have any funded research projects?

a) Yes b) No c) Don't know

27. How long have you known your committee chair? _____ months

28. How long has he/she been your committee chair? _____ months

29. Have you ever changed committee chairs since the beginning of your study in this department? a) Yes b) No

If yes, what was the reason for the change? _____
_____

30. If you were asked to identify a faculty member who has mentored you, would this be your committee chair? a) Yes b) No
Explain_____
_____
_____
_____

Please write your answers to the following questions in the space provided. Feel free to write on the back of the last page if more space is needed.

31. What benefits do you feel you receive from your relationship with your committee chair?

32. What are the negative aspects or weaknesses of your relationship with your committee chair?

33. Have you and your committee chair collaborated on any scholarly projects (research studies, professional presentations or publications)? If yes, please describe:

34. How do you define the mentoring experience between a doctoral student and her/his committee chair? What should it look like?

Was/Is your experience anything like this?

35. Is there anything else you'd like to share about the mentoring experience as a doctoral student or your relationship with your committee chair?

When you are finished, place the survey in the enclosed envelope for return. Please complete the postcard and mail it separately from your survey (to ensure your confidentiality, do NOT enclose the postcard in your survey envelope). Completing the postcard will allow me to remove your name from follow-up. On the postcard, you may also request a copy of the research results.

-Thank you very much for participating-

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